Organ of the State Agricultural Society—the only Agricultural Journal in Michigan and

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THE MICHIGAN FARMER

MAN HOUSE TOWNS THEY HOME JOURNAL !!

Devoted to Agriculture, Horticulture, Stock-Raising Mechanics, and all things pertaining to the Farming Interests of Michigan, and Agriculture in general. 181 per year.

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CONTENTS OF THIS NUMBER.

PAGE 433—A Michigan Wool-growers Convention. 484—The Wool Market. 485—A Short Chapter about Horses.

Over \$1000 in Premiums; Three good Stallions; To-

bacco Culture.
— Control of Broom Corn; Root Culture.
— Cultivation of Beans; Root Culture.
— Culture of Broom Corn; Hop Culture.
— Artichoke; Item.
— The importance of Marsh Muck as a Fertilizer.
— Cultivation of Corn.
— Good Roads.
— Good Roads.

893—Good Roads.
496—Sex of Eggs.
497—How I kept a cow; Cheese per Gallon of Milk.
497—How I kept a cow; Cheese per Gallon of Milk.
498—White Pippin and Red Canada Apples.
509—Trainment of Damaged Peach Trees; The Apple.
500—Cultivation of Apple Trees; Starting the Delaware
Grape from Cuttings.
507—St. Joseph County.
508—California as a Vineland.
508—Hists on Tree Planting; Work for May.
508—The True Vising of a Greenback; Dollar; How to
unake Soap, Soft and Hard; Ijems.
507—Hon. John Wentworth's easy mode of Producing
Chester White Pigas, Drilling Wheat.
508—Flax Culture.
508—Cultivation of Potatoes; Grafting the Grape-vine.
510—The Planting of the Apple Tree; The Kiss in School;
Our Feet.
511—Dun't Rock that Raby; Two Meals a day.

Our reet.

511—Don't Rock that Bahy; Two Meals a day,
512—Too Early Changes of Clothing; Correct Speakers,
5130-Flower Garden; About Roces; Plants for Room

Culture; Asters.
Striking Cuttings; Poultry Hints for May.
The Ast of Raising Turkeys.
The Golden Poland; Growing Cucumbers; The vafue of dead Horses; Cure for Nails growing into the

Fiesh.

517—How to raise good Milich Cowsfrom your own Calves.
518—Spring Management of Sheep.
519—Oxen versus Horses for Farming purposes.
520—Treatment of Cows.; The Art of making good Butter.

522.—Horses; Heaves.
522.—Horses; Heaves.
523.—Washing Sheep; Scab; U. S. 10-40 Loan; Cut and
"Uncut Potatoes.
524.—Number of Plants to the Kers; Early Potatoes;
524.—Number of Plants to the Kers; Early Potatoes;
525.—State News Items.
526.—The Poison Cup; New York Cattle Market.
527.—New York and Detroit Markets; Detroit Live Stock,
502.500.800.Advertigements.

528-529-580-Advertisements.

A MICHIGAN WOOL-GROWERS CONVENattention and his conortal give him but little

During the past month one or two communications have been received by the President and Secretary of the State Agricultural Society, expressing a desire that a mass convention of the wool-growers of the State might be called at some central point to discuss the great interest involved in the production of wool. The association known as the "Farmers and Mechanics Association of the counties of Washtenaw, Jackson, Livingston and Ingham held a meeting lately at Unadilla, at which a resolution was passed, requesting the President of the State Agricultural Society to call such a convention at Ann Arbor. The proposition, we hardly consider, as yet to have been sufficiently before the wool-growers of the State to have had that general attention which would secure a general attendance. We are satisfied by communication with the President of the State Agricultural Society, that just as soon as he is satisfied by any general manifestation by letter or otherwise that such a convention is desired by any considerable number of the wool-growers in the several sections of the State. and learns from the expression of their wishes, where would be the most desirable to hold such a convention, that he would feel it his duty to respect general feeling upon this subject. At the present time, the condition of the spring work, which is extraordinarily behind hand at this season, and the hurried labors of the farmers, would necessarily preclude a very general attendance at an early day, of to matter of do yah year oroled

Again, relative to the time of holding such a convention, there is much to be said. Should our wool-growers desire to discuss questions on which it would be the duty of Congress to act, it would be necessary to hold the convention as soon as possible, otherwise the important acts which would affect the wool growing interest will have become laws, and cannot be changed, neither could the views of the wool-growers of the State be laid before Congress at a sufficient early day to have a beneficial influence. Should, however the convention be called merely to discuss and

obtain more intelligible views of the state of the wool business, the relation it holds to the manufacturing interests, the position it occupies as one of the leading productions of the State, and to what extent it may be extended in comparison with other agricultural pursuits, then the convention might be held with much better results at a later day, and especially when we consider that the planting season throughout this State will be closely followed this season by the wool shearing and that will hardly be off the farmers hands before his having and harvesting will occupy all his attention and his time, and give him but little opportunity to be absent a day, in the absence of much of the help he has hitherto been accustomed Serrotary of the State Agricultural uniterest

We believe, a convention of wool-growers, could be held in this State, with excellent results, and shall esteem it our duty to promote such a meeting in every way in our power. Meanwhile, those who feel interested in the matter, should address the Secretary of the State Agricultural Society at Detroit, giving their views of the objects of the convention, where it should be held, and the time which would seem to be the best .-From these communications, such a plan of organization could be matured and prepared as would facilitate the action of such a meeting, and at the same time tend to render it serviceable in promoting the interest it is designed to subserve

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With the Press

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Wool is quite active. In consequence of the continued bad state of the soil for field operations within the past four weeks, farmers having nothing else on hand have brought in large quantities of wool from Oakland, Washtenaw and other adjoining counties. Sellers are more firm for prices than at our last report, and buyers willing to pay 70a75c., and at this rate full 350,000 pounds have changed hands within thirty days in Detroit .-Some producers are holding on still, with the hope that the new Tariff will send domestic wool up; whether much advance over 80c. will be realized before next fall is a matter of doubt, even if a heavy duty is put upon foreign wool.

The reasons for this conclusion in our mind islst. That manufacturers, believing that Cengress will pass a high Tariff, are laying in large supplies for future use. di Mod of The

2d. That the present activity in the wool market is created by manufacturers and merchants instructing their agents to buy up all wool in the west, that can be had for 75c. or less, as to quality, in order that they may have a full storage.

3d. That when well supplied, they can much better control the price of the new clip of 1864,

of which a large portion must be immediately sold as a first crop by needy producers who have demands to meet.

4th. Manufacturers have five weeks to hurry in importations of wool from South America and other countries abroad-which with the domestic on hand, will keep their machinery through the hot weather, when even woolen goods are only

of light bulk and fabric.

5th. When they are snug, they will withdraw nominally from the market, the demand will fall off, holders will fret, and buyers will only take such lots as they can get at a low price, on a margin of 2a5c. to vary upon. For farmers must remember that men who have for the last twenty years kept wool down, will not allow it to go up, if business shrewdness and strategy can prevent high prices.

Last year, says the N. Y. Economist, we imported at all ports, about 55,000,000 lbs. of foreign wool, and yet with this immense supply of the foreign staple, woolen goods have been scarcer on the market than during ordinary years. Competent judges estimate that in 1864 we shall have an addition of 750 sets of new machinery, which will require 30,000,000 lbs. more to keep it employed. Last year, the supply of wool, was as near as many be, as follows:

Domestic clip, 80,000,000 lbs. HELT WO ET Foreign imports, 55,000,000

> Total, \$135,000,000 " at Hard

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The new machinery now going into operation will increase the demand from 135,000,000 pounds to 165,000,000 pounds. Supposing that extraordinary efforts on the part of the wool-growers should increase the crop of the present year to 90,000,000 pounds—an extreme estimate—there would then be a deficiency of 75,000,000 pounds to be supplied by importations, yet domestic pro-ducers want, by injudicious legislation, to cut off 40 per cent. of what is necessary for home consumption. How can they supply the deficiency?

Prices in Detroit do not vary since our last-Pure blood Merino' extra clean, - 72a75c. good order, Canada long clean Fleece, --- 55a60c.

The market is firm and active, and lots find a ready sale-sellers generally ask an advance, but buyers refuse to exceed our figures. Throughout Michigan prices range from 60c. to 70c. according to quality.

BOSTON,-The demand for wool has been quite active the past week. Buyers are taking all available lots offering, and prices, although not quotably higher, are firm, and tending upward. A much larger quantity could have been sold, but holders are now quite indifferent about realizing, believing that prices can go no lower at present. There is considerable wool still in the country to come forward, but it will evidently all be wanted before the new clip is available. The transactions of the week foot up some 900,000 tb. flores and pulled principally from 72a90c. per lb, as to quality, the latter price for choice grades of fleece and extra pulled, although in one instance the latter was sold as high as 95c. per lb. Included in the sales we notice 70,000 lb. fine Pennsylvania; at 85c; 175,000 ib. fine Ohio, at 86c; 15,000 ib. fine Ohio and Pennsylvania at 87½c; a lot of choice Pennsylvania at 80c; 159,000 ib common and medium Ohio at 78c; 9,000 ib fine New York, at 88c; 5,000 ib fine Ohio, at 57c; 50,000 ib choice Michigan at 88c; 5,000 ib do at 82c; 30,000 ib. New York State at 75a80c; 25,000 ib common Ohio at 75½c; 15,000 ib medium do a 80c; 21,000 ib Illinois and Wisconsin, erdinary, at 75a75c; 5,000 ib Baltimore super at 71c; 8,000 ib New York and Philadelphia extra at 83a82c; 58,000 ib extra at 83c; and other sales up as high as 95c for very choice extras. The transactions in foreign continue to be restricted by the firmness of holders and the extreme prices asked. The sales of Canada comprise 70,000 ib No. 1 and super short pulled at 72a78c; 3,500 ib black pulled do, ordinary, at 60c; 25,000 ib Canada lambs and No. 1 pulled at 62½c per ib cash.—Shipping Lies.

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NEW YORK.

Wool continues in fair request, though the demand is less animated, and the market has been somewhat unsettled, owing to the rapid fluctuations in gold and exchange, and the uncertainty still existing regarding the Tariff bill. But most helders are indifferent sellers unless at extreme rates. The sales are 258,000 lb domestic fleeces at 74a77%c for common to fine; 350 baies Pulled at 73a55c. for super and extra city and country; 16,000 lb California at 45a50c; 200 baies Cape at 45a50c; 300 do Donskoi at 51a55c; 120 do Cordova at 60c; 120 do Mestiza at 84a35c; 500 do Provence at 35a40c; 220 do East India Syrian, Donskoi lamba, 25,000 lb Mexican and 8,000 lb Texas on private terms; also by auction, 69 baies damaged Cape at 27a 43c cash.

Washington of the 20th, state that the committees of both Houses had fully considered it,) the prices for the "new clip" will be medium, and until November continue so. Gold and military events may vary it from 5c. to 7c., but no more, as the U.S. 10-40 Bonds are fast being taken up, and the army is well provided with clothing for the spring and summer campaign.—W. S. B.

A SHORT CHAPTER ABOUT HORSES.

is here develop for

We are evidently doing something towards improving our horse stock. Last week we made a visit up to the grounds of the Detroit Association at Hamtramck, and found a whole string of strong looking thoroughbreds going through their exercises, and preparing for the spring meeting which promises to be of more than ordinary interest.

First, there was Eolus, the four year old by Kenneth out of Ida by Glencoe, that took the first premium at the State Fair at Kalamazoo.—
He has grown stronger and stouter during the winter, and has more substance than he had last fall, but has the same untiring stride. Ida's dam was by Medoc, being a half sister to Mary D. who was by Wagner.

Second, the Madeline Filly, known by that name not having received any other. She was very wild last fall, but has been trained down this spring into a fine form, and is looking sound and springy as a greyhound. She is very fast. This filly is by imported Stone Plover, and out of the racing thoroughbred mare bred by Henry Clay, named Madeline. Madeline was out of Ravena, the dam of Alice Cameal.

Third, Rook Miranda is a dark brown colt recently brought into this State from Kentucky by L. Chappel. He is by Lexington out of Ohio by Bertrand, and has all the strong powerful limbs of his sire, with a great deal of his form, and style of going. This colt promises to be quite an acquisition, as he has good size and is very strong. He ought to be so as the Bertrand blood is as strong a strain as there is in the American blood horse.

Fourth, a strong chesnut colt which was brought from Tennessee by an officer of volunteers, and which is said to be a horse of a very strong strain of blood, but whose pedigree we were unable to obtain. He is a little ugly, but his trainer is bringing him into camp, and he is showing a fine time of speed.

Fifth, Henry Chappell has a brown colt by Buford out of Gertrude. Gertrude is by Chorister, out of imported Maria Black, the dam of the celebrated Sallie Waters. This horse colt is a three year old, and is said to be remarkably fast.

These horses all show great speed and the interest taken in them seems to indicate that we may raise some very fine thoroughbreds in this State.

About a half a mile beyond the Association track is the farm of Henry Chappell, where he has a remarkably powerful thoroughbred stallion. well known as a very fast horse when he was in running form named Tight Eye. This horse is now six years old, is a little over 154 hands high, a bright chesnut, of very great substance and powerful limbs, strong back, and low built, on short legs, with a fine long blood like neck, and remarkably fine head. He is a grandson of Boston, and out of a Glencoe mare, so that he is of as strong stout famous blood as any horse bred in the United States. His sire was Herr's Boston, by Old Boston, out of the dam of Sambo, by Aratus. His dam was Nancy Pigg, by imported Glencoe. His half bred stock are some of the most elegant and promising colts around this city, and he is in truth a valuable stock horse.

In the yards here we found a colt by imported Stone Plover out of the thoroughbred Glencoe mare Ida which promises in another year to be a three year old racer of great quality, if he meets with no accidents. As this colt combines the Touchstone and Glencoe blood, we shall look for his development with much interest. There is also a very promising little filly by Col. Grayson, out of Emily by Grey Eagle which has the make of a racing mare of some power when she gains some more size and age.

We call the attention of farmers to Harder's Thresher and Cleaner, its excellence has been proved

OVER \$1000 IN PREMIUMS!

The Michigan Association for Improvement in the Breed of Horses, will hold its Spring Meeting for 1864 at the Association Park, Hamtramck, on the 14th, 15th, 16th and 17th of June. Competition from Canada and all the States is invited. This is a fine opportunity for our friends having fast trotting or running stock to try them over some of the best grounds in the State. All entries must be made by a member of the Club. Entries and entrance fee 10 per cent. must be paid to the Secretary, in advance of each day's races. Everything in this Association is conducted in the most commendable manner and the rules are strictly enforced. Hon. K. C. BARKER, President, and Geo. Hendrie, Secretary. title Page

THREE GOOD STALLIONS.

ford out of Gertruinossira ude as by Charister, Michigan is fast assuming a leading position in regard to breeding the best horses in the country, by reference to our advertising columns it will be found that the well known stallion " Ericsson" is to stand for the season in Detroit. This affords a splendid opportunity for all lovers of blood stock to avail themselves of his services:-"Ericsson" was brought from Kentucky in 1862, and was known in Kentucky under the name of "John Morgan," and is a powerfully built horse, fully 161 hands in height, and of magnificent deep mahogany bay, with black mane, tail and legs .-His action as a trotter has hardly been equaled at the age of 4 years-he having "kicked the dust from his heels" at the rate of 2.301, and as he comes of trotting stock, being from Mambrino, of the great Messenger family, it is natural. He is the property of the Hon. K. C. BARKER, who has spared neither pains or price to introduce some of the best horse stock into Michigan that the State can now boast of two motord till ye

Wayne Chief.

This best get of imported " Stone Plover" in this locality although a young horse is winning golden opinions among our farmers. For style, action and build he is a beauty, and we hear that his owner has been offered a large sum to part with him by one of our best judges of good stock. He is to make a season at the farm of his enterprising owner Mr. A. D. Powers, of Farmington, who has fitted up a fine half mile track on his premises. We should advise those who want Sione Plover stock cannot do better than try "Wayne (hief," as without doubt he is the "worthiest son of a worthy sire"-and will stamp all the good qualities of a long line of illustrious winners of the hardest contested races of the English tur "The Derby" and "The Oaks." Mr. Power

has two other colts of this stock out of a well bred Messenger mare, "Wayne Chief" has taken three first premiums at different Michigan State fairs, as shate the Wow to West state as sire

Kemble Jackson,

F. E. ELDRED, Esq., gives the farmers of Washtenaw, Oakland and Wayne counties and the State generally an opportunity to get some of the stock of his well known and sure stock-getting horse "Kemble Jackson," which is the best Messenger and Bashaw stallion in the West. He has produced some of the finest colts in the State, and his get took the silver medal as the best stable of colts at the State Fair for 1863. He is now just in his prime as a stock getter. Persons in want of fine trotting stock, can hardly do better than to try "Kemble Jackson's" qualities which he has so far indelibly stamped upon his progeny. His pedigree is pure, and his long, full step gives great speed and beautiful action.

TOBACCO CULTURE,

W. S., a correspondent from Carrsville, Kentucky, where a large amount of the best tobacco is raised, says in the Valley Farmer :-

Our method of cultivating, harvesting and curing tobacco, is simple and easily acquired. We break up our tobacco and corn land at the same time. The land intended for tobacco, is then subject to a good harrowing. Again, early in May, it is broken up, harrowed and brushed. The land is then laid off and crossed, three and a half feet by four. In the crossing (or just where the furrows cross,) a small hill is made with the hoe, drawing up the earth to a point about one foot high, then striking upon it with the flat part of the hoe, thus making a surface from seven to ten inches in diameter to receive the plant after the first rain. We aim to have our hills ready by the 25th of May to ment erous to od to assistered

One of the principal essentials for a good grop of tobacco, is to break up deeply and pulverize the soil well: this done, the crop is half made.

After the first tolerably soaking shower, the plants are drawn and set out in manner and mode to wit: Two hands distributing or dropping one at each hill, while three follow after setting them, by thrusting a hole about the centre of the hill with one of the front fingers, putting in the plant and pressing the earth; gently to it with the front finger and thumb of each hand. w 2297

Having completed the setting out, nothing more is done, unless perhaps a re-planting or two, until the plants have put out two or three new leaves. We then go over it with the hoe, sgraping lightly around each plant (two strokes properly made will suffice, as much to break the

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baked earth, as for the removal of grass and weeds. A light and easily handled plow is then put to work, and the plowing continued, at intervals of about ten days, as long as a horse can pass between the plants without breaking the leaves. About the fourth ploughing, we again put in with our hoes, break off three or four of the ground leaves, and throw up the soil pretty well around the stalks. After it is hilled up, we give the tobacco a ploughing or two. About this time, or during the light of the moon of July, much of our time is devoted to removing the eggs and small worms that are just now being produced pretty freely; in fact, we might say, that from the latter part of this month until the crop is housed, our entire energies are devoted to topping, and removing eggs, worms and suckers. We top to six and ten leaves, owing to the vigor of the plant and the lateness of the season.

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As soon as one-fourth or third of the crop is ripe enough for the knife, we begin the cutting. Knives of many descriptions are used.

If the maturing or ripening is anything like uniform or general, the cutting is delayed until the last moment. Practice is required to know when tobacco begins to recede. Should it mature, promiscuously or in patches of twenty or more plants, it is cut accordingly. If a general ripening, we take it clean as we go, throwing two rows together. If our cutting is done in the forenoon, the butt ends are placed to point south; if in the afternoon to the Southwest, thus avoiding, to a considerable extent, the liability of sun burning. Having completed the cutting, the sticks are hauled, and so distributed as to allow ten plants to each. After it has become sufficiently pliable or wilted to handle, which it will do in two or three hours, if the weather is dry, we take our little portable stands or racks, and pass from stick to stick, placing the tobacco upon them as we wish to bang it in the barn, carefully lifting it from the stand and laying it upon the ground with the butts pointing as above stated.

The sticking being completed, the tobacco is conveyed to the barn upon a frame (not unlike a hay frame;) it is three feet high, three and a half feet wide and twenty feet long; from seventy to eighty sticks can be hung upon it, which is a pretty fair load for a yoke of good cattle. From the wagon, or rather from the top of the frame, by placing a board across, the tobacco can be handed up and hung upon the fifth tier by two hands. We place the sticks in the barn from eight to ten inches apart, and fire but little, and then only in damp weather, during the curing season.

Were we to grow tobacco in old and manured lands, the cultivation would be somewhat differ-

ent, and when housed would fire pretty heavily until cured saist yld afford virganical saws as a si

The early part of June is soon enough to finally set out the plants in Michigan, as the grounds
is then warm and frosts over.

More Northern Cultivation.

A correspondent of the Boston Cultivator gives the method practiced in Massachusetts:

Samuel Graves, of Hatfield, says that the "Connecticut river seed-leef tobacco" is the best for the grower in this region. He recommends changing seed often. He begins to prepare tobaccoplant beds in the fall and plows them early in the spring. Make the bed rich with manure and fertilizers. A southeast exposure is desirable when it can be had; if sheltered by buildings, all the better. Protect especially from northerly winds. When the seed is sown, about a tablespoonful to the rod, tread the bed hard, and repeat it again in about a week, which brings the plants to the surface earlier than any other way. Keep the surface of the bed wet before the plants appear, and water them while growing. Depend upon artificial fertilizers rather than upon barnyard ma-Apply fertilizers to the plants in the bed before transplanting them.

Plow the tobacco field from the 1st to the middle of May. Harrow well before setting the plants, that the ground may be well pulverized. Let the plants be set in rows 3.1-3 feet apart and 2 feet 2 inches apart in the rows. Drop the fertilizer where the plant is to be set, covering the fertilizer with dirt, say 2 or 3 handfuls deep, and then "spat" it so as to make the earth firm. Set the plants about the same as cabbage plants. Set so firm that they cannot be pulled up without separating the leaves from the roots: this is done by pressing the earth round the roots. If plants die, reset at once. Set from the 5th to the 15th of June, says Mr. Graves. Later will do. Early frost must be avoided.

In hoeing, cut up the weeds without disturbing the ground near the plants. Tobacco needs less hoeing than any other crop. Weeds must however be thoroughly eradicated. Run the cultivator through the rows the same as with corn.

E. Marsh, of Hatfield, says, one rod of ground, will grow plants enough to set an acre. But provide for more, so as to be sure of enough when wanted. Save from 14 to 16 leaves on plants when topping. This however, must depend after all upon the soil and the season. It is unpossible to dispense with the exercise of sound judgment in all matters in regard to farming; and tobaccogrowing will not be found an exception to this conditional remark.

CULTIVATION OF BEANS, WILLIAM

Bans were formerly profitably raised for market at one dollar per bushel. Now they commund three dollars, and are likely to rule higher, at all events, through the coming year. Agricultural statistics of Delaware County show that the average product of wheat per acre for some years, has been about eight bushels; oats, beans and potatoes, nearly thirty bushels. Now I find by experiment, that the cost of raising a bushel of beans is only a trifle more than that of potatoes, and only double that of oats. They make a very profitable market crop, besides being an excellent article for family use, and especially valuable to the sheep-husbandman, as sheep will eat them readily without grinding, and thrive well upon them, while for other stock it is necessary to grind and mix them with other grain. The vines are also valuable to feed to sheep.

Planting.—Beans may be planted after other crops are all in. Plant early productive varieties, not later than June 15th, if practicable on sandy loam, of where corn was raised the previout year, using no additional manure, lest the luxuriance of the foliage prevent an abundant crop; or the beans may be planted alternately with corn where the corn is manured only in the hill; by this method, Mr. McKinnon, of this town, raised sixty bushels of corn, and thirty bushels of beans to the acre. In many places beans are raised successfully as a fallow crop. Weeds are fatal to this crop and must be kept thoroughly subdued. Plant five or six beans to the hill, under two inches of clean, mellow soil, and make the hills sixteen by thirty inches apart and cultivate only in dry weather. The profit of this crop is greatly increased by successful ripening, curing and cleaning; to accomplish this I have tried various methods, the following of which I have generally found successful:

1. To ripen properly.—Plant early in June the Medium White Bean, the Kidney Bean or the Mountain Cranberry. Cover the hills as nearly as possible to the same depth. Soon after the vines appear above the surface, thin to five stalks, and give each hill a sprinkling of plaster and ashes; this mixture will render the vines less palatable to the cut-worm, faciliate their growth, and deepen their color.

2. To cure successfully.—When the pods are nearly all ripened, pull immediately, carefully picking off all the green pods. Have stakes eight feet long, set at intervals, firmly in the ground, with sticks, stones or straw around their base for the beans to rest on. Pull an armful at a time, shaking off the dirt that adheres, and place them around the stakes with the roots against the

stakes. Here they can, without injury, await your pleasure to be taken to the barn and threshed.

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3. To clean perfectly.—After the beans are threshed take them to the scaffold over the barn floor; place under the skuttle hole a box with a blanket in it; then on a very windy day, open both doors and pour the beans slowly into the box. All foreign matter will thus be driven beyond the box, unless there should be small stones which must be guarded against by carefully dusting the dirt from the roots of the vines.—E. P. Vall, in Rural American

of the sell ROOT CULTURE, Transferred of

protty freely; in fact

we wight our, that from

It must be admitted, says the Rural American, that the most successful farming is that which obtains the greatest mass of sustenance in the least possible space. Then if by the cultivation o roots the capability of the soil for supporting animal life can be doubled then the power of agriculture is increased at the same ratio.

Which of the roots that are usually cultivated are the most valuable, is a question that can be answered only by the cultivator; for it depends wholly upon the object of their use. For the food of man, there is no vegetable containing so much nutritious value as the potatoe. As food for cattle, turnips, beets and carrots are excellent, and their cultivation for this purpose is highly profitable. By many, the beet crop is considered the best grower for stock. Over 30 tons can be raised to the acre, or, on an average, 1,000 bushels. The mangle-wurtzel is, perhaps, the best variety, all things considered, as they can be grown upon any soil that will produce corn, and frown to very great size. They should be planted from the first to the middle of Mayor earlier, if the ground is warm enough-in rows from twenty inches to two feet apart; they need space, light and air to thrive. Two seeds should be planted in a hill, and when the plants are fairly started, thin to one, leaving the best. " If the ground is deeply and thoroughly prepared before planting, and well cultivated after, beets may be grown that will weigh 30 lbs. each. It is estimated that six bushels of mangle wurtzel beets can be raised as easy as one of carrots, and that the expense is not as great to raise an acre of them as an acre of corn. All kinds of stock are very fond of them; they make an excellent spring feed, and are preferable to carrots and turnips for milch cows, as they do not taint the milk.

The carrot is a valuable root, and for horses is, perhaps, the best; fed alternate with grain, they are excellent; they are very nourishing and healthy. The carrot is not as easily raised as the

beet or turnip, for there is a greater difficulty in keeping them free from weeds while growing, They require a deep, loamy soil, thoroughly enriched, and great care in cultivation. should be planted one-half inch deep in drills from twenty to thirty inches apart. As soon as well up, they should be thinned to five or six inches. For winter use, the Long Orange and the Altringham are the best varieties; for early use, the Early Horn is best. The ensiest way of harvesting is to hoe off the tops and run a plow close to the rows before pulling.

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The turnip crop is a good one. The long White French is one of the best cultivated; but, it is thought that flat turnips will stand more freezing without injury. When sown among corn, or tobacco the Red Strap-leaf, or Cow Horn, are best, Turnips should be sown from the 15th to the 25th of July, upon light, rich soil. The salt has sheen

CULTURE OF BROOM CORN.

F. C. Hobart, of Iowa, in a correspondence to the Prairie Farmer, says-Having said much about the broom corn business generally, I will give you my method of cultivating it:

ratio mandles therewither this being Any soil that will produce good Indian corn, will produce good broom corn, and that which will bring but poor Indian corn will also bring but poor broom corn. med trade tool out bue rabmes

havers sypreparation of the soil.

This may be done the same as for Indian corn, with this remark, that it should not be plowed too long before planting and that it should be thoroughly harrowed tatutal was oden onto?

reparine the ground SEED. Great care should be taken to get the best to be had. There are a great many kinds of broom corn, perhaps as many as of any other kinds of grain. The main points to be aimed at are fineness of brush and evenness of length. Fine brush, from 14 to 16 inches in length, is the best for making brooms. The best seed to plant is that which will produce that kind of brush, and can be had at the seed stores under the name of "Best Seed from the Mohawk Valley, New York." It is a crop that deteriorates very quickly in point of fineness of brush by planting the same seed on the same place, hence the necessity of changing seed often; seed should be changed every other year at least, to insure a good crop of fine brush. There are some kinds it would be best to discard altogether; Large English is one, as it is too coarse, except for special purposes, and Dwarf Broom Corn is another, it being too small for general use. Always test your seed by sprouting some before planting, otherwise you may loose your crop; I neglected this precaution

last year and failed in raising a crop in consequence

TIME OF PLANTING. ald all Tondo

The best time to plant in Iowa and Illinois is from the 15th to the 25th of May, but from the 10th of May to the 10th of June will do. If a large crop is to be planted, put some in late, so as to lengthen the season of harvesting; I saw one crop put in the 4th of July in Illinois which matured the brush but not the seed; that was a chance crop, however, and would not do to be plants (3)! The second year, and the governed by.

THE OUPLANTING HOUSE TO KIS TO SOME

The best way to plant is to lay off the field in rows both ways, say three and a half feet or four one way, and sixteen to eighteen inches the other. and drop by hand eight or ten seeds in a hill at each cross row and cover with a hoe to the depth of one to one and one-half inches with fine moist earth. But where a large field is to be planted, my plan is, to get a two-horse corn planter and stop up the holes through which the corn drops with a piece of wood or leather so as to leave room for eight or ten seeds to pass through in the same way that the corn does. Make sure work of this by moving the lever a good many times before you commence to plant, and see that the seed drops regularly, every time you move the lever. When you are satisfied that the machine will throw the right number of seeds every time, you can drive to the field and begin to plant. Don't put much seed in the planter at once, as you will be the more certain that it is dropping right. Run all your seeds through a sieve, the meshes of which are at least as small as they are in the planter, to prevent choking. dried. This is strays where se soon as possible

nietens of has an Hop Culture, sig one voil tools

Although the Hop is not a culinary vegetable, as it is more or less used in every part of our country, it may not be amiss to treat of its culture. It is presumed, that in proportion as habits of temperance are inculcated, our citizens will have recourse to beer as a wholesome beverage; and as a great deal depends on the manner in which Hops are cured, I purpose giving directions for their management throughout, so as to enable those who choose, to prepare their own.

The Hop prefers a deep loamy soil on a dry bottom; a sheltered situation, but at the same time not so confined as to prevent a free circulation of air. The soil requires to be well pulverised and manured previous to planting. In Hop districts, the ground is generally trenched either with a plow or spade. The mode of planting is generally in rows six feet apart, and the same distance in the row. Five, six, or seven plants, are generally placed together in a circular form.

and at a distance of five or six feet from each other. The plants or cuttings are procured from the most healthy of the old stools; each should have two joints or buds; from the one which is placed in the ground springs the root, and from the other the stalk. Some plant the cuttings at once where they are to remain, and by others they are nursed a year in a garden. An interval crop of Beans or Cabbages is generally taken the first year. Sometimes no poles are placed at the plants till the second year, and then only short ones of six or seven feet. The third year the Hop generally comes into full bearing, and then from four to six poles from fourteen to sixteen feet in length are placed to each hill. The after. culture of the Hop consists in stirring the soil and keeping it free from weeds; in guiding the shoots to the poles, and sometimes tying them for that purpose with pass or withered rushes; in eradicating any superfluous shoots which may arise from the root, and in raising a small heap of earth over the root to nourish the plant. Hops are known to be ready for gathering when the chaffy capsules acquire a brown color, and a firm consistence. Each chaffy capsule, or leafed calyx, contains one seed. Before these are picked, the poles with the attached stalks are pulled up, and placed horizontally on frames of wood, two or three poles at a time. The Hops are then picked off by women and children. After being carefully separated from the leaves and stalks; they are dropped into a large cloth hung all round within the frame on tender hooks. When the cloth is full, the Hops are emptied into a large sack, which is carried home, and the Hops laid on a kiln to be dried. This is always done as soon as possible after they are picked, or they are apt to sustain considerable damage, both in color and flavor, if allowed to remain long in the green state in which they are picked. In very warm weather, and when they are picked in a moist state, they will loften heat in five or six hours; for this reason the kilns are kept constantly at work, both night and day, from the commencement to the conclusion of the Hop-picking season. o an agell doing aldans of as or lin

Artichoke.

for their mans

The Garden Artichoke is a perennial plant, producing from the root annually its large squamose heads, in full growth, in June or July, until October or November. The Globe Artichoke, which produces large globular heads, is best for general culture, the heads being considerably larger, and the eatable parts more thick and fleshy.

All sorts may be raised from the seed, or young suckers from the bottom, taken off in the spring. A plantation of Artichokes will continue to produce good heads six cr seven years, and sometimes longer; but it must be observed, that if a supply of this delicious vegetable be required throughout the season, a small plantation should be made from suckers every spring for a successive crop, as the young plants will not produce their heads in perfection, till after the crops of

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the old standing ones are over.

The most likely way to obtain a supply of Artichokes in this country, is to sow the seed in the latter end of March, or early in April, in a bed of good rich earth, or it may be planted in drills one inch deep, and about twelve inches apart .-The ground should be light and moist, not such as is apt to become bound up by heat, or that in consequence of too large a proportion of sand, is likely to become violently hot in summer, for this is extremely injurious to these plants. After the plants are up, they should be kept free from weeds, and the earth often loosened around them.

The business of transplanting may be performed in cloudy or wet weather, at any time after the plants are from nine to twelve inches high. Having fixed upon a proper soil and situation, lay on it a good quantity of rotten dung, and trench the ground one good spade or eighteen inches deep, incorporating the manure therewith; this being done, take up the plants, and after shortening their tap roots a little, and dressing their leaves, plant them with a dibble, in rows five feet asunder, and two feet plant from plant in the row, leaving part of their green tops above ground, and the hearts of the plants free from any earth over them, and give each plant a little water to settle the roots. It is guillald encled gand out

Some make new plantations with the seeds at once; this may be done by preparing the ground as above, and sowing a few grains of good fresh seed in each spot where a plant might be set, covering them about three-quarters of an inch deep, and then, by marking each spot with a peg stuck in the ground, the vacant places may be planted with Cauliflower, Cabbage Plants, Dwarf Beans, Lettuce, &c., taking care to keep the plants at a sufficient distance from the young Artichokes.

When your Artichoke plantations want manure, lay on a coat of old rotten dung, previous to the digging of the trenches in November, and cover it over with the earth as you throw it up; in the Spring following, digit in the Spring following, digit in the Spring following, digit in the Spring following,

The Flint Citizen says; "Mr. A. H. Lyon, of Flint Township, has ' laid upon our table' a hen's egg, measuring no less around, than seven and five-eights inches one-way, and six inches the

If Mr. Lyon has recovered from all ill effects of his effort and intends to continue laying eggs, please send him down this way. Eggs are scarce and high .- Pontiac Jacksonian.

THE IMPORTANCE OF MARSH MUCK AS A PERTILIZER.

Messrs. Editors:—I have read the March number of the Michigan Farmer with more than usual interest, as it contains much matter to which I have given considerable attention, though not engaged at present in agricultural persuits beyond gardening and some small patches, my predilections carry me back to times when I sought and indulged opportunities to mingle such fancies with my legitimate occupation. Living in a fair farming section circumstances gave me constant opportunities to watch and note the effects of various methods adopted by others in the cultivation of cereals, grasses and roots, together with my own tests as to the management of different crops, fertilizers, &c., &c.

I am much pleased to see the attention of farmers so reasonably and forcibly directed to the very important but greatly neglected subject of marsh muck, and the varieties as fertilizers—the mode of preparing it—the results of experiment-

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The very able, clear and scientific lecture of Professor Kedzie, of our State Agricultural College, carries upon the fact of it such plain consistent reasoning, such conclusion tells that all cultivations of the soil who have easy access to a muck bed (and but few have not as they abound through the State,) must be wilfully blind to their own interest with such facts set before them, if they neglect to avail themselves of the abundant means of applying plant nutriment to their crops, to say the least it is surprising, the fact is the soil must be fed, if deficient in vegetable mould when called on to feed, as germinating seeds and roots possess mouths that must as necessarily be supplied with food and to be kept up the same as animals to perfect their full development. Hence if land abounds in such elements as are evolved in cultivation by the chemical action of frost, air, heat and moisture, an abundant yield may be safely counted on with ordinary circumstances, and as a matter of course in all cases the product will be in proportion to the deficency or supply of required ingredients. It is only to be named to be admitted that a succession of crops without any replenishing articles applied will impoverish the soil

It is a lamentable fact that our farmers cultivate too great a breadth of land. If the extra cost for land, fences, taxes, &c., were reduced to a smaller area, time and expense could be devoted to bringing a less amount of land to a much higher state of fertility and apply better culture, such a course would be more to their interest and derive much greater enjoyment from the occupation, but I

find I am digressing from the object of this letter which is to add my experience with the professor's with marsh muck as a fertilizer, which I will indeavor to state from memorandum kept in as concise a manner possible and understood. Some years since I purchased a lot of land (21) twentyone acres, of light sandy loam, It had been rented to different tenants for nine years, however when I came in possession of it I found a selected spot of about ten acres planted to corn, the balance abandoned on account of its poverty, the corn yielded sixteen bushels per acre. In the field on one side was a muck bed of half an acre covered with bog and grass, on digging into it in several places I found it averaged from three to four feet in depth a black friable mould mixed with partly decayed vegetable fibers. I resolved to test its effect on my worn out poverty stricken land. Space will not allow me to describe my mode or rather process of bringing it to the upland, with a dumping car, horse and windlass, a man could cut out per day after the bogs and grass were skinned off forty-one horse cart loads with a sharp spade, another day bring it by aid of horse and car deposit it at the dumping place on the upland, on third day, deposit it in cart loads on the adjacent land, fifty-one horse cart loads were applied to three acres each, during the month of May, on each load was sprinkled from eight to ten quarts of lime, and allowed to remain until the following spring, when fifty loads just cut out was applied to the fourth acre to which the same amount of lime was added. Shortly after all the muck on the four acres were spread, the ground harrowed both ways without plowing as no sod had formed on it. The ground was then plowed lightly and sown to a mixture of oats and buck-wheat. The three acres in due time was covered with quite a decent growth, the fourth acre made but a feeble show the form of ground and quality being alike (level), as soon as the effeet became evident, knowing I had the means at hand to bring my land to a state of productions. I set myself zealously to work to transfer a large amount of muck to upland, to ripen and be convenient of access." I erected a piggery, procured forty shoats, for factors, kept them in pens and fed them on green clover from racks with thin swill of fermented bran, when the clover gave out. I had recourse to my mangel wortzel patch (and they did well) at odd spells supply the yard with muck that had been cut out the year previous, also kept my two cows in the yard all the season to which added muck and little from horse stable. The green crop on the four acres was plowed under in July and September, the compost from the hog yards was applied to them at the rate of for-ty horse cart loads to the acre, plowed and sowed

The rve yielded nineteen bushels to the acre.-The fourth acre improved very much on the other three though not quite as good. When the corn was two years before, three acres was measured off, fifty loads of compost from the pens and yards to the acre was spread, plowed and planted again to corn, which yielded thirty-seven bushels to the acre. A strip three-fourths of an acre had furrows drawn, three feet apart by running a one horse corn plow each way, then filled the furrows with the muck compost, the dirt thrown out by the plow, on each side was thrown back in the form of backlashing upon the filled furrows, a garden rake was drawn on the ridge thus formed to fine, level down, and widen the top with a crotched stick, the ends eight inches apart made marks half an inch deep on ridge, drop the seed eight to ten inches apart in marks, cover lightly and moderatly press down the earth. In the case I now particularly refer to I filled the marks with a compost of muck, hen dung and plaster, fearing the seeds might perish before reaching the compost below, the ground being so destitute of all plant nutriment. I might as well say here how I prepare my carrot, ruta baga and parsnip seeds, to get the start of weeds. I mix them in about six parts of sand, moisten them with yard juice, spread an inch thick, and stir frequently for three or four days, and plant by taking a pinch between thumb and finger and deposited where wanted-my mangle wortzel seed I merely took in water. The yield of the said patch gave me a crop of as fine roots as I have ever raised in my garden. By planting two rows near together, you have more rows then when single better opportunity to plow between them and in hoeing one row you half hoe the other. Again, by side of vegetable patch, drew several furrows from three to four inches deep, three feet apart, dropt potatoes in them two feet apart, covered them with a large shovel full of composted muck except one row which was covered with the dirt (I wont call it soil) when dug fourteen hills made a bushel of fair size potatoes except the row which was planted without the muck yielded next to nothing. I might mention several other tests with muck, but find I have said much more than I expected and you can find space for, if you deem it worth notice-and will close by saying it must be evident that the lime, hog and yard manure alone would have fallen far short of producing the amount of crops under the same circumstances that was obtained by the addition of the mucks Finding I have omitted to state my tests with muck only, I feel I must add, that I have used it after laying a year in windrows or heaps with great benefit on vines and top dres-

to rye, the following spring seeded to clover,-

sing on meadow land, as an application to gardens of heavy soil especially when composted, it is undoubtedly a far better application than the same amount of all manure, it lightens the soil, stands drouth much better, and yields a greater growth of plants.

Yours, &c.,

Schoolcraft, April, 1864. M. FREEMAN.

CULTIVATION OF CORN.

BREAKING UP.

This is by far the most important operation connected with the tiliage of corn. I shall consider the times and modes by which it can be best performed.

1. The times.—Ploughing for the corn crop may be done in the fall, in the winter, or in the the months of March and April. Much diversity of opinion exists as to which is the best. If green crops are turned under early in the fall, high chemical authority alleges that the rapidity of decay evolves acida, which are injurious to vegetation. Besides, the soil by winter and early spring rains will be so much settled as to require a second breeking up before planting, or at the first ploughing of the plant.

If much ploughing is to be done, a portion of it may properly be performed late in the fall or in the winter, for the facilitating of the operations of the form will compensate for the deeper ploughing that may become necessary in the first cultivation of the plant.

But we have seen that a critical time of the corn crop is at its tasseling, and early spring ploughing brings at that time the decay of the grasses or straw which may have been turned under. If ploughed in the fall or winter, the early deep cultivation of the plant will bring the decayed grasses too much to the surface. On the other hand, if the farmer decires to deepen his soil, fall or winter ploughing is advantageous by exposing his under soil to the ameliorating action of the cold. The better course is to plough in the fall or winter all lands to be deepened, leaving those deep enough to be ploughed in the spring.

2. The modes of breaking up.—These are by shallow, deep, double and aubsoil ploughing. In the west four inches and under are regarded as shallow ploughing, and from eight to twelve inches deep ploughing. But properly these terms relate more to the natural depth of the soil than to inches. If ten inches in depth upturus much of a clay subsoil, it is too deep, for a rich, well pulverized soil, though but six inches deep is better than the same amount of lertility mixed with four inches of unameliorated clay subsoil. Fall ploughing is uaeful in auch cases, but even then the depth should be increased gradually. Double ploughing is usually performed by one turning plough following another in the same furrow. This is useful in turning thick sods under deeply, such as are found in old bine grass pastures. This ploughing may also be done by a double team with the Michigan plow.

Subsoil ploghing does not turn up or mix the under soil with the top soil, but simply breaks it up finely so that the sir and surplus wet may pass through it. Whatever the modes of ploughing may be, they have a common object in view—the pulverization of the soil so as to allow the air and water to pass through it. Whilst I have not claimed for deep ploughing its alleged effect to prevent the action of drouth, yet as an enricher of the soil and as an active agent in advancing the growth of the corn and other crops, especially those requiring clean culture, it merits all that has been claimed for it.

The deeper the soil is plowed, the more of its particles the sir reaches and turns their mould to earbonic gas, and the greater amount of its mineral elements are rendered soluble. Hence it is necessary to keep this soil well stirred, because our rains compact it, and to bring the exygen in contact with every portion of the particles of smould, just as you would stir a glass of water having sugar or salt in it, which you wished to have dissolved.

Ploughing, then, being the medium by which this action of

the sir and its carbonic gas upon the growth of plants is facilitated, is of the utmost importance to the farmer. Mr. Rabb, of Rising Sun, Indiana, has been justly called its model farmer, and his mode of ploughing se well unites the various advantages of common and subsoil ploughing that I allude to it, premising this, however, that one of his farming maxima, is this: "To raise with clover, and manure all lands to bear good crops before he sows or plants in grain." Having provided mould and fertile elements, he thus establishes the connexion between them and the sir.

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After breaking up deeply in March, he lays off the field for planting by running four furrows with a turning plough, two on each side of the drill in which he plants his corn. These drills are about three feet three inches apart, and the subsoil plough is then run about three times in them. He never allows weeds to grow in the corn, but continues plowing, in dry reather and in the fall, until weeds and grass cease to grow. By these methods he says he has raised, for the last ten years' over one hundred bushels of corn to the acre. This mode of breaking up, and the culture it leads to, cost about one third more than the usual breaking up and cultivation, but the yield is double in quantity. But this method of breaking is well adapted to wet lands by draining the water below the roots of the corn is the subsoiled furrows. It may be advantageously practiced in heavy clay soils usually found along creeks. where the lands recede towards the hills and do not readily drain their surplus water into the creeks. Instead, however, of planting in the low subsoiled furrow, a drill should be run on the ridge, and the corn planted in it, leaving the low and subsulled portions to carry off the water.

HARROWING.

But little need be said of narrowing. Its object is to level and pulverize the soil. For these purposes the barrow should be heavy, and used until its work is completely performed. I use a heavy double V, and always reach over half the width of the preceeding round, equal to twice harrowing Sod ground ploughed in the usual way should be harrowed both ways in this manner, for all subsequent cultivation, as well as the prevention of the growing of the grass and the hastening of its decay, depend upon the harrowing being thoroughly done. If the harrow is not heavy enough, it should be made so by a stick of wood tied across it. In ploughing elay soils, it is better to use the harrow every other day at least, especially in dry weather; for if left until the whole field is ploughed, as is usual, the clay is apt to bake, making it difficult to pulverise.

LAVING OFF

This is always done immediately before planting, in order that the places to plant the corn more readily be seen, and that the soil for covering the grains may be as light and loose as possible. A shovel-plough is generally used if the ground is free from sod, grass, or weeds; but if not, the small turning plough is better, for it is not so easily turned aside.

The distance spart of the furrows should be determined by latitude, kind of corn, the richness of the ground, and the probabilities of the season. As already noticed, the small corn of the north may be planted three feet spart as a general rule, but in the south not less than four and a half feet. In the western States the usual distance on uplands is four feet, and on alluvial soils about three and a half feet. These are the distances for hill planting, where the field is laid off both ways. But if the corn is small for the latitude, the planting may be closer, as three and a half feet for the rows running north and south, and three feet for those running east and west. Three feet by two and a half, leaving but two stalks in the hill, may do very well, in excellent soil, for such corn as the calloo, which is rather under size for the latitude of the west, But larger varieties must have more space, especially if the probabilities of the season indicate drouth. Since 1854 the crops of corn in the west have been much heavier every alternate year, these years being the odd numbers, as 1805, 1857, &c. How long this will continue no one knows. The record of the weather in New England, from 1628 to the present time, shows that our climate is liable to intense drouth, occurring at irregular intervals. The first half of the present century seems in a great measure, to have escaped them, but since 1850 these

drouths appear to be returning. Hence in laying off, the locality, as well as the mould of the soil, must govern the farmer when he aims at raising the heaviest crop. A low, moist location on a river bottom is much more favorable for such a crop than soil equally as good that lies higher and not in the vicinity of a river, for its fogs aid the corn crop no little. These circumstances are frequently everlooked, and an entire failure of the crop is often the consequence.

In drill planting the ground is laid off in one way only—usually in rows running north and south. The width of these varies from three to five feet, according to the richness and moisture of the soil, and the distance apart of the stalks in the rows, which must be governed by the kind of corn. Thus, for instance, the premium corn crop of the State fair of Indiana in 1860 was 208 bushel: to the acre, weighted between the 5th and 10th days of October, when one-third of the weight probably was water. Still the crop was enormous. The kind of corn was the called already noticed, the drills three feet apart, and the plants from five to six inches spart in the row. This was a river-bottom crop, having all requisites that are domanded for such a mode of planting.

I have spoken of Mr. itabb's mode of planting by drills, which are subsoiled three feet three inches apart, and the plants twelve inches apart in the row, leaving very often twe stalks together. His crop, as entered at the same fair, was 182% bushels to the acre. Drill planting requires more cultivation with the hoe, but the greater yield amply compensates this kind of labor.

PLANTING.

Before planting, the corn is sometimes scaked, then tarred and limed, or covered with a mixture of lime, ashes, sait, and gypoum. This is done with a view of aiding the growth of the plant whilst young, but particularly to protect it against the depredations of birds, moles, and the cut-worm. From my experience I do not think any advantages are gained by so doing. I ceneur, with Mr. Coffin, of Dutchess county, New York, who says: "After trying various methods of preparing seed by soaking and rolling it in different substances, I have abandoned the whole, and plant as it comes from the cob."

Many implements have been invented to facilitate the planting and covering, but none have been successfully introduced. This arises from the fact that both these operations may be well done by the younger and female portions of the family, and the covering made with the most pulverized soil by the

In planting, many farmers so dread thinning out that no more grains are dropped in the hill than they desire to grow. This is wrong. Even when the seed is properly saved they generally have to replant or cultivate a crop so thin on the ground as to be unprofitble. At least two grains more than the required number of stalks should be planted, for, besides the defect of the seed in the ordinary way of saving it, the weather often suddenly becomes cold and wet, with beating rains and drying winds, during which the seed is liable to ret. especially those of weak vitality, or are prevented by small clods from coming up, and when they are up they are thinned out by birds and the cut worm. It is much better, then, to thin out than to replant; it is more speedily done, it allows a selection of the most thrifty stalks, and replants are always dwarfed either by the late planting or by the injury received from having an older stalk in the hill.

The covering should be as light as possible, more especially on clay sells, and all clods should be exceedily removed. Farmers are often successful in deep covering, but only so when favored by a rich, losse soil and the absence of beating rains. The scener the corn is up the better, and to avoid too deep planting the furrows should not be deep.

CULTIVATION.

After the seed is planted it is not usually necessary to commence the tillage until the plants are up. But sometimes it may be advantageous to do so. Thus in level clay lands which have no surface drainage, which have an impervious clay sabsoil, or which are undrained and unsubsoiled, it may be well, in wet seasons, to run a deep furrow in the middle of the spaces between the rows as soon as the corn is planted. It will aid the drainage and draw much of the water from the more

At other times a compacting rain falls immediately after the corn is planted, and usually followed by dry, cold winds, which bake the surface so compacted. Under these conditions the corn shoots cannot break through this hard surface, especially if the seed has been eceply planted. A light harrow should then go over the field that this crust may be pulverized.

When the corn is up the culture should commence with a light three-shovelled cultivator. I prefer it to the heavy two-abovelled, because it can be run within an inch of the plants, thus loosening the soil immediately about them, and throwing some loose soil in the hill to deatroy grass and weeds that may be growing in it. The shovel next to the hill should not be run as deeply as the other two. This "going over" should be by the most steady plough-horse the farmer has, and requires constant watchfulness on the part of the ploughman, especially if the laying off and dropping has not been well done, for the cultivator should always be close to the hill, and not six or ten inches from it, as is too often the case.

These leave the ground level, the surface stirred and clean of weeds and grass. But another object of the cultivation is to loosen the soil that the sir may readily penetrate it to the depth it was broken up, so that it may carry its carbonic acid to the roots of the plants, and penetrate the soil in all directions, that its mould may absorb this carbonic acid and be decomposed by the oxygen of the atmosphere, and the insoluble minerals rendered soluble. The third ploughing must have these objects in view as well as the destruction of the surface weeds and grasses. To accomplish them the soil must be completely stirred to the depth it was first ploughed, and this about done by the double-shovelled cultivator or the single-shovelled, or the bull-tongue.

If no compacting rains have fallen, the double shovel is preferable because it is more speedy than the single shovel. It requires but twice running to the row, but the single shovel three times. But often particularly in clay soils, the ground is so compacted by what may properly be called melting rains, that it is harder than it was before it was broken up. In such cases the best implement is the buil tongue, and it should be used until the ground is once more completely pulverized. This may require four runnings to the row, for it is narrow, but on that account leaves no unbroken soil in the bottom of the ploughed ground, as the sbovels would do. Such cultivation may be tedious, but it must be done; and the additional labor is to be charged to our climate. If this work is well done, it renders the subsequent cultivation the easier.

The fourth and last ploughing should have an additional object in view, namely, the leaving of the ground in as level a condition as possible, that its washing may be prevented, and, if laid down in wheat or rye, that the seed may have a level surface to be sown on. If there are weeds or grass in the hills, these should be covered up, and this may require a small turning plough, or the shovel may be used, and the ground levelled with the light cultivator. If a turning plough is required, then the middles should be levelled down with the same cultivator.

It is hardly necessary, at this day, to consider the propriety of level culture as opposed to hilling. Having tried both, I would not tolerate hilling nuless in such extraordinary drouths as those of 1854 and 1856, when the roots of the corn did not extend to the middle of the space between the rows. To heap ever these roots the soil of the middles in order to protect the subsoil moisture I then found expedient, but as soon as the drouth was over or, the corn matured I would level the ground. No one who values his soil, or, in ordinary seasons who regards the value of roots to the corn, would allow them to be washed naked by the streams which hilling causes. Nor does such hilling avail anything in preventing the corn from being blown down. The best safeguard against it is well developed roots in a deep, level soil, and in such a soil the stay-roots are slaver most vigorous.

In prairie cultivation the two-horse double cultivator is generally used because it is more expeditious, requiring but one running through to each row. The soil there is light, and no obstructions exist to prevent its use.

The great error of our agriculture is too much breaking up, and, as a consequence, too little cultivation. This error is often aggravated by unfavorable weather in May and June, when, in consequence of continued wet, the growth of the weeds and grass surpasses that of the corn. The practical question, then, is, shall the cultivation progress during the wet state of the ground, or shall the farmer wait? To stir the ground when it is too wet is always bad policy, and no farmer should put in crops so disprepertioned to his labor that he cannot wait until the ground has sufficiently dried. But when he sees that the weeds and grass will seriously injure his crop, he should then risk all consequences from stirring the soil when too wet. If the rains continue, the injury to the ground or, to the weeds will not be so great, and should they cease, he should then wait until the ground is dryer. After that not s moment is to be lost until every weed is destroyed and the matted fox tail completely anihilated.

The directions I have given for the cultivation of the corn crop contemplate four ploughings. Whether more should be given depends on the season, the soil, and the manner in which the ground was broken up. Mr. Rabb, as already stated, continues ploughing as long as weeds or grass grow. The cutil s for premium corn crops at the Indiana State fair referred to. show that the crops were cultivated from two to seven times, Thus the one-acre crop of 268 bushels was ploughed with a shovel-plough three times. The ten-acre crop of 258 bushels per acre was ploughed four times with a shovel-plough and hoed over after the first ploughing. Another crop of 115 bushels per acre was first harrowed with a one-horse harrow twice in the row, and then ploughed over once every week for six weeks, making seven cultivations, A crop of ten acres, yielding 172 bushels per acre, received six cultivations. A fiveacre crop of 180% bushels to the acre was ploughed twice only ith a shovel plough running but twice in the row.

As these crops are reported to the State Board of Agriculture, they set at defiance all modes of cultivation. As in theatres, the reality is not before the curtain, but behind the scenery; so with these reports, behind them the truth is seen. The last-named crop was planted on a piece of ground never before ploughed, which had been a stable lot for many years, where the manure had collected "until the stables had to be removed." It was in blue grass, also, and thus to great natural fertility were added the sod and these accumulated manures. The ground was broken up only four inches deep; had it been ten, and the cultivation more thorough, the yield would have been much greater. Again: the best cultivated field was that which yielded 172 bushels. It was underdraine ed, broken up from nine to ten inches deep, cultivated seven times, but planted in hills four feet apart. Had it been planted in drills, as nearly all the other crops were, it would, probably, have yielded the largest crop.

But again; in the instance given from my own experience of raising about one hundred bushels to the acre, with but one surface ploughing, the crop was thus large, not because it received no better cultivation, but for the reasons that it was sod ground, not very good, however heavily manured with the richest horse manure, deeply ploughed and subsoiled, and planted in drills three feet apart, followed by one of the most favorable seasons I have ever seen. No cold, heavy, compacting rains fell, but warm. genial, and timely showers. All seeds of weeds and grasses had been turned under too deeply to vegetate, and hence the soil remained clean and loose, At another time I caned a good crop without any tillage, the ground being double ploughed and subsoiled to the depth of 18 inches. The season was favorable. But in both these cases the yield would have been much larger if proper cultivation had been given.

When the cultivation may cease must be determined by the season and the condition of the crop. Mr. Rabb's rule is a good one, that the cultivation should continue as long as weeds and grass grow. The analyses of the grain which I have given thou that it is not until the first of October that the corn plant ceases to regular large quantities of any thene weeds and

grass or an unfavorable condition of the soil should not be permitted to limit this supply. The grain is long maturing, and It is not until October that it receives the principal amount of Its nutritive properties. From the middle of September to the middle of October the portion of water decreases from 78.75 to 8.45. It is obvious, therefore, that cultivation should not be discontinued so soon as it usually is. But in any cultivation that may be given in the months of July or August great care should be taken not to cut the roots, for they are then not growing vigorously, but are drawing the water with the fertile elements of the soil into the circulation of the plant, that the grain may be perfected.

No cultivation, however excellent, can create fertility; its only object is to establish a more perfect connexion between the soil, the atmosphere, and the roots of the plant. Hence, if the soil is destitute of fertile elements, the best cultivation

will be fruitless.

CUT-WORMS, MOLES, THINNING OUT.

About the time the cultivation should commence, and until the second one is completed, the young plants are frequently injured or destroyed by cut-worms and moles. No steeps for the seed seem to deter the cut-worms, and the only available remedy is to search them out. This can be pretty readily done, as they usually go into the ground by the stalk they have cut off, or under some loose clods near by. If diligent search is made for them, it is a much more expeditious mode of destroying them than those who have not tried it would

suppose.

Moles are not easily caught, and do much more damage, for their depredations are much more extensive. They harbor under stumps, and, to lessen their number, these should be extracted as soon as possible. Rapid cultivation, which destroys their burrows, is the most effectual remedy that can be pre-

scribed,
When the plants are six to ten inches high the thinning should be attended to. This should be done carefully; the weakest plants should be pulled up, and every hill carefully examined, that no more than the proper number be left. What that number is depends on latitude, size of corn, the distance apart of the hills or the drills, and the strength of the soil. In the north, where the eight-rowed corn is planted, from four to six stalks may be grown, but in the west never more than three, no matter what is the distance of the hills. When the hills are three by two and a half feet but two stalks should be grown, and this number should not be greater on our common uplands, even when the hills are from three to three and a haif feet apart. If, however, the corn is under medium size three stalks may be left. In the south two stalks only are allowed to stand.

In drill planting greater care must be given to the thinning, lest the crop be injured. The number of stalks to the acre, when the hills are three feet apart and three stalks to the hill, is 14,520. Mr. Rabb thins out to 19,600 in his drill cultivation. Mr. Lake, who raised the 263 bushels of corn to the acre, had his drills three feet apart and the plants from five to six inches apart in the drill, making over 30,000 to the acre But his land was very rich, moist, and the corn under a medium size. -Louis Bollman, in U. S. Agl. Report.

obligate of the GOOD ROADS. see sellings to

The Germantown Telegraph speaks to the point on the pressing importance of "good roads," and also facts in regard to the "corn grub" and "flat surface plowing for corn:"

Are there any farmers, readers of this journal, who would prefer, during four or five months in the year, roads in so wretched a condition as to break their wagons, strain their horses, and consume double the time to travel over, with only half a road, than to pay one or two dollars extra road-tax a year, to have all this changed? We oubt that if this question could be put indivi-

dually to farmers in any part of the country, it would be answered in the negative. All want good roads. And yet they live from year to year, uttering complaints against the roads, without raising a finger toward making them better. They will not even walk to the election on the first Tuesday in April, and deposite their votes in favor of a candidate for Supe visor who possesses some judgment as to how a road lought to be repaired; and who possesses independence enough to keep all the roads in the township or district in good, passable condition, without regard to the few grumblers, not tent out as files pailmuos

Some of the Supervisors elected know no more about mending a road than they do about making a watch. They think that digging a little trench at the sides and throwing the dirt out, is all that is required or that they are called upon to do.-Road-mending, however, is a science. Draining the water from the traveled portion into carefully-formed gutters; stoning miry places; bridging water-courses; filling up the ruts firmly whenever needed; pressing down the newly repaired road with a heavy roller; require some little practical knowledge, and ought not to be entrusted to persons who have no other claim to the office of Supervisor than that they are needy, have nothing to do, and wish some lazy employment.

We are glad to see that in some places this is being removed—the proper persons elected Supervisors, and the roads repaired in an excellent manner. A Supervisor, who will not keep the roads in the best condition, for fear of spending a little more money, and making the tax higher, and as a consequence be turned out at the next election, should have the tables turned against him, and be ejected from office for not doing so.

Flat Surface for Corn. The old fashion of hilling Indian corn-so long prevalent among our farmers-appears still to have many advocates. We are not at present prepared to discuss the subject in all its bearings, but shall merely offer a few remarks in relation to the advantages resulting from a flat surface on light soils, and from cultivating the crop with the cultivator, instead of cultivating with the plow, harrow and hoe. The harrow aven and

It will be evident, we think, to every candid faind, that the practice of constructing large conical hills around the plants, on land which is light and dry, must inevitably tend to increase the effects of drought, inasmuch as it exposes more surface to the atmosphere, and consequently increases ærefaction at times when all the moisture contained in the soil is required for the support and sustenance of the plants. When rain falls, the conical hill conducts the water from the roots to the centre of space between the rows and hills

very little of the fluid being retained about the plants, or within range of the small roots, by which the pabulum is taken up by the growing plants, and without which they would immediately languish and decay.

On light soils we think hilling is always a disadvantage to the crop. Every fresh stratum of earth placed over the roots causes the protrution of a new set of laterals, to the detriment of those previously formed. This exhausts the energy of the plant, without increasing, in any great degree, its powers of appropriating food from the surrounding soil, as the first formed roots cease to grow as soon as those caused by the deposition of new soil are developed, and in a short time will be found to have lost their vitality and become mere worthless appendages, and which may be as well removed from the system as not.

Besides, when the corn is "hilled up," the stalks are "blanched" and rendered brittle by the fresh soil, and this, in case of strong winds, cause them to break, which is an injury involving a diminution of product and consequent loss. It has also been remarked that corn, when cultivated without "hilling," and with a perfectly level or flat surface, will, when prostrated by the wind, rise much more readily than when the opposite method is pursued. And I know this to be so.

The Corn Grub. The corn crop has several formidable enemies to contend with, and among them is the grub, which sometimes literally destroys whole fields, or damages the crop seriously. One of the best and most convenient remedies-perhaps the very best every suggested-is the application of salt as soon as the plant makes its appearance above ground, prepared and used in this way: Take one part common salt and three parts plaster or gypsum, and apply about a tablespoonfull around each hill. It will be found to be a sure protection .-The mixture should not come in contact with the young plants, as it may destroy them. This method has been tried over and over again by some of the best farmers of Pennsylvania, Delawaie and Jersey, and when properly applied, has never failed to be perfectly successful. We hope our farmers, who have reason to fear the depredations of the grub, the present season, will try this mixture, leaving a few alternate rows of corn without the salt, and communicate to us the result.

Planting Potacoes,

A correspondent of the same paper says:—I have paid particular attention to the cultivation of, and experimented with potatoes for the last twelve years, and am fully satisfied that well-selected planting potatoes of a medium size, such as will require from twelve to sixteen potatoes to the pound, are in every respect as valuable for

planting as the largest; and if there is any difference, it is in favor of the medium-sized, for the simple reason that the same quantity by measure will plant about one fifth more than large ones.

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One end of the potatoes has no seed eyes, and consequently there is much loss in planting the large ones with their large eyeless ends, as they will not plant as many hills as medium sized ones do. It really is a useless waste to plant large potatoes when others can be had. But then the selection must be made with care, as all seed selections should be. I attend to it in person, so that none but the purest and unmixed are selected, and as that is done in the fall and from the wagon as they are brought from the field. If they are thrown on heaps, and the selection put off till winter or in the spring following, it becomes more difficult to recognize the bad and mixed seed, and then I will guarantee that bad ones will be found in the succeeding crops, from the fact that the skin of potatoes changes so radically that it becomes difficult to find all impure ones.

In conclusion, permit me to say that there is no reason why well-ripened, sound and pure mediumsized potatoes should not be as good in every respect as the largest for planting. Give a large potato, that weighs one pound, and one of three ounces, both from one hill, to a correct chemist, and if he analyses both alike in every particular, and if the proportional ingredients are not alike, I will pay for the analysis. The difference then 's, that the largest potatoes, which command from seventy five cents to one dollar a bushel, should be kept for market, and the medium-sized, often fed to stock, should be planted. I make three sorts of potatoes, namely, market, planting, and the refuse for stock, and by that process obtain Mercers having the reputation of being the best potatoes that come into the Pottsville market.

Sex of Eggs.

In a late number of your paper I notice a statement that long eggs produce male chickens and short ones female. You ask your reader to try it another season. To save them the trouble, I will say that a similar statement went the rounds of the papers twenty years ago, and at that time I thoroughly tested the statement and found that the shape of the egg does not indicate the sex.

Perhaps some of your readers will be benefitted by knowing that an eggs placed under a setting hen for some two days and then exposed to a strong light by being held to an aperture through some opaque substance, so as to place the egg between the light and the eye, will exhibit lines of blood, if it is not addled. At a later period the egg becomes opaque and, of course, cannot be tested in this way. When I had the care of hens I used to place simply a nest egg under a setting hen until three hens were wishing to set at the same time. Placing eggs under each at the same time, in due season I tested them as above described, and took away the poor eggs, placing the good ones under one or two hens, thus securing a large number of chickens from each hen that was permitted to spend her time in setting, and brooding chickens .- Aroostook Pioneer.

HOW I KEPT A COW. To by serious

ebud Jim

I would like to tell your readers how I have kept a cow the year round, on the crops of grass that grow in one season on a small piece of ground. My land is what is called clay ground. and of course very productive of grass, so much so as to be almost incredible to persons acquainted only with growing grass on gravelly or sandy thought war at harring

I have a piece of side-hill which faces a little east of south, thus being early of vegetation. It contains seven-eights of an acre, and is inclosed by itself. I have also about one-eight of an acre of lawn around my "hut." The crops of grass from these two pieces of ground, one acre in all, are devoted to keeping a cow. I have a cowhouse, 12 feet square, at the side of the barnyard, a door to enter it from the yard, and one to enter from the outside without going through the yard, while taking care of the cow. In one corner of this house, and opposite the entrance from the yard, there is a manger or feeding-box; in another corner there is a place to spread straw for her bed. (In winter she is thus kept clean.) In the yard there is a tub to hold water for her to drink in summer.

As soon as the grass is large enough to mow, which is usually about the 20th of May, I cut enough (early in the morning, while the dew is on it,) to last her twenty-four hours,-in bulk, the fill of three flour barrels, pressed in with the hand. Then for convenience in feeding, this grass is conveyed and piled on the ground near the cow-house door which is entered from without, and the dew being on it, if not piled too deep, it will not heat, but will be kept fresh through the day. Then as to the feeding, one barrel of grass is dumped into the manger each morning, noon, and night. There are times when the grass contains too much moisture, which is known when the water in the tub is not diminished by drinking. In such case, I lay a lock of hay within her reach, so that she may mix her food, as to wet or dry, to her liking. When the grass in the field becomes full grown, and while yet palatable for feeding, usually from the 10th to the 15th of June,-I cut for hay, except a small patch which is left for feeding, until

the growth where first cut is large enough to cut again. Thus I keep on mowing round and round, from about the 20th of May to the 1st of October, going over the ground four times, and having somewhat the second and third times of cutting, which is required to be done in order to make good hay and allow of a new growth for feeding. And this course has sufficed to keep a cow thro the foddering season.

The lawn I mow seven or eight times, and feed as I mow. About the first of October the grass becomes to scant to mow to advantage; the cow is then turned into the lot to feed it off. In foddering I measure the hay, as I do the grass in summer, so as to be sure the cow has all she can eat. One barrel-full is given each morning, noon, and evening. The hay that I feed is good, so, that she will eat from the top of the pile, and not besmear it with her breath and make it unpalatable. In cold weather the cow receives watermorning, noon, and evening-from a bucket, with hot water added to the cold, to take of the chill: also, each day during the foddering season she has a few vegetables given in two messes, immediately after being milked, so that she may know when to expect them. It will be seen by the above, that the cow at all times has access to her manger, for the door to the cow-house is only closed at night in cold weather, or on cold or stormy days in winter, and then she is within.

I think this method of keeping a cow, near perfection; because she can economize her food and time. As to her food, she can deposit her cud for undergoing a chemical change when she chooses, and make her food more productive. Then there is no loss of her valuable time for lack of something to do. In this way she will eat more, which is a pleasure to herself and a profit to her owner; for it would take a certain amount of food to sustain her system, that is, to renew the decay, and whatever more she eats is converted into milk or flesh.—Amos Fish, in Country Gent.

Cheese per Gallon of Milk.

in working etc.-X. A. WILMOT, in Truns. of N. Y.

HORTICULTURE

For the Michigan Farmer.

White Pippin and Red Canada Apples—The Importance of Shelter for Crops.

Sometime in March, specimens of two varieties of apples were received, from Mr. Ballard, of Niles, for identification; which, upon examination, proved to be White Pippin, and the old Nonsuch, or Red Canada, so long and favorably known, in this region of our State, as Steele's Red Winter.

The White Pippin has long been a favorite in the orchards of Ohio, Indiana and Illinois, but its success, even in the more northerly portions of those States, and farther north, has been deemed problematical. On informing Mr. B. of the true names of these varieties, he volunteered the following statements, as to his acquaintance with the White Pippin; which, with his consent, I transmit to the Farmer for publication:

"I first discovered it in an orchard near here, some seven or eight years ago, and was so much pleased with it that I have been watching it closely, from year to year, since that time, and the longer I am acquainted with it the more highly do I value it. I am told it was brought here. from Indiana, many years ago. In one orchard, here, it has been in bearing, I should think, twenty years; and the owner has none but good words to say of it. In all that time it has proved perfectly hardy, regularly productive, and in all good qualities of tree and fruit, one of the most reliable and profitable of any in his orchard. We have young trees of it, now in bearing, in an orchard of same twenty five of the older standard varieties; and, if I were to choose but two winter kinds, they would be this and Red Canada.

The storm of Jan. 1st, was very severe here, and much damage was done to tender fruits; and, in some plants, complaint is made that the trees themselves are killed. In our grounds, the Peach blossom buds are killed, and some of the last years growth is somewhat discolored; but appears fresh, and, I think, is not materially injured.

At St. Joseph the Peach Orchards, at least some of them, are reported to be all right.

Apples are uninjured here, I think. Of Pears, some kinds seem injured nearly or quite as badly as the Peach. I notice the Bartlett, and Doyenne d' Alencon, in particular; of which the bark and wood are discolored as much as on Peach trees standing near them. Whether they will survive and make sound trees again, my experience is too limited to enable me to judge. Several other kinds of Pear are uninjured, or only slightly affected." Yours, truly,

Niles, March, 23d, 1864. M. M. BALLARD.

The statements of the above, as to the injurious effects of the past winter, are full of admonition, not only to orchardists, and the devotees of Horticulture in general, but also to agriculturists at large,—in fact, to all who are interested in the produce of the soil.

Fifteen or twenty years ago, when this was a heavily timbered region, and just becoming dotted over with clearings, hedged in and separated from each other by stretches of timber, complaints of the winter-killing of fruit buds were unheard of; the Peach was almost as sure as the rolling round of the proper season, and such a thing as the injury of trees from cold was unknown. Crops of winter grains, which now are so liable to be denuded of snow by our sweeping winds, were then quite as liable to become smothered from accumulation of too great a depth of this covering; but, in the meantime, the remorseless axe has continued its work, oblivious of the terrible results to flow from its wholesale destruction of our sheltering forests, until broad areas are laid open to the dry and piercing winds of winter, as well as to the drought bringing gales, and tempestuous storms of summer.

But the increased force of the wind, and the greater variableness of our winters, are not the only evil results from the wholesale destruction of our forests. It is a fact well understood and acknowledged by meteorologists, that a treeless country is, almost in the same degree, a rainless one; and this increased liability to drought is still farther aggravated by the more rapid drinking up of the moisture of the surface, by the unrestrained winds, and the unmitigated rays of the

In this region, where the ground has been without its usual covering of snow during the entire winter, the almost utter ruin of the wheat crop is a sad commentary upon the reckless destruction of our frosts, attendant upon the opening up of our new lands. Had our pioneers been thoughtful enough to leave a belt of timber along the west and north sides of each farm, the force of our winds and the character of our climate would have been but slightly affected, and we would now have been able to look upon fields, green with the springing grains, instead of those hopelessly brown and desolate; or, at the best, with green belts a few feet wide along the sheltering fences.

When we reflect that, this reckless process is still going on, and that we may, in consequence, anticipate the frequent repetition of the past winter experience, is it not time we should cast about us for a remedy? But the reply is, the work is already done; and, hence, our regrets come too late. I answer—we can stop where we are, and make sure that the process goes no far fied older the ling of can lof pi

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cutti char Cut four char grew ther. Furthermore, every man can go to work in earnest to repair the damage, by the planting of belts of trees along the exposed sides of his farm; and our Legislature can be appealed to, for the enactment of laws for the encouragement of this renewal process. The State laws can be so modified as to render it easier for the people, in the older portions of the State, to shut cattle from the highways, as a means of stimulating the planting of trees along their borders, and the process can be still farther stimulated by the liberal offer of premiums by the State authorities.

Plymouth, April, 1864.

T. T. Lyon.

TREATMENT OF DAMAGED PEACH TREES,

The severe cold of the past winter has not only cut off the peach crop in the West, but in many sections has seriously damaged the trees, in some cases killing them to the ground. At a meeting of the Cincinnati Horticultural Society held last week, Mr. Hanna read an article on the treatment of damaged peach trees, which is of interest here as well as elswhere:

In 1848, January the 10th, the thermometer fell to 181 degrees below zero, which was 21 degrees lower than last winter, it being 16 below zero on the 1st and 6th of January. In 1848, all peach buds and many trees were killed. I had a choice peach tree to all appearance dead; at least it was prenounced so by Mr. Sayers, of Cottage Garden, and Mr. J. C. Ferris, both fruit growers. Cut the bark and it had the appearance of molasses between the bark and wood, and the bark on the body was split open. I was so confident it was dead that I took an ax and cut the top off within eighteen (18) inches of the body, and intended to dig up the tree when the ground became suitable to plant some other tree in its place, but it was neglected, and that summer it threw out strong thrifty shoots, making finest and most compact top. In 1850 that tree bore a crop of peaches.

January 20th, 1853 the mercury fell twenty two (22) degrees below zero. As soon as it thawed, I examined my peach orchard—I then had some three hundred (300) trees—and found them badly frozen and the bark burst open on the body of the trees, mostly the southwest side. I thought I had learned something from past experience. I took a trowel, and a bucket of yellow clay mortar, and closed the splits in the bark-

On the third of March following, I commenced cutting the tops of the trees off. I had a thin sharp cleaver, and a large bench to stand upon.—Cut from the bottom. Cut every limb to within four feet of the body of the tree. It gave the orthard a very unsightly appearance, but the tops grew out finely, and formed fine heads.

In 1853 I sold the farm to Mr. J. P. Broadwell. That year and the following the trees bore full crops of as fine peaches as any sold in your market. The branches being short; there was no breaking down when loaked with fruit.

I am fully satisfied that cutting in peach trees will make them more thrifty, and live much longer. Many are cutting down their fruit trees.—
This I think all wrong. Better cut them in, and be sure to cut to the quick.

THE APPLE.

The following is from an Essay by J. C. Shoe-maker, read before the Indiana Horticultural Society, and published in the Rural Intelligencer:

"To increase and improve the taste for the cultivation of fruit, is to render the world a lasting blessing.

While I recognize no fruit as unimportant, I may be permitted to add, that in my judgment the APPLE outweighs in value ALL other fruits .-Ripening in June (in southern Indiana and Kentucky) it may be preserved until the return of that month. It is, therefore, fairly entitled to be considered a fruit always in perfection, Laying no claim to the exquisite flavor of the grape or the pear, it may be, and we think should and will become, the every day food of the million. The rival of the potato itself, adapted to almost all soils and climates, its best varieties equal in nutritive value to the potato pound for pound, and can be produced at one-fourth its cost, It is, therefore, the cheapest of all food for man, exacting but little, is regular and abundant in yield .-How very important then to know the best varieties and the best method of cultivation.

FORM OF TREE.

Aware of the difference of opinion as to the height heads should be formed for orchard trees. I unhesitatingly declare my experience to be in favor of low heads. In my judgment the advantages in their favor are many; such heads being stronger and at the same time subject to fewer accidents. They better protect the trunk from the effects of the sun, and the trunks are also less liable to the attacks of borers and bark worms. Almost all our orchard trees will be found to be affected by high or cold winds, a large portion of them seriously. The higher the heads or tops of course the more they are exposed. Low-headed trees are much more easily pruned, will bear earlier and live longer; the fruit is less liable to be blown off by winds; is gathered with much less difficulty and danger and with less expense, and so far as my experience goes, I can suggest no ill effects to counterbalance these advantages.

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Almost all our old orchards are planted 30, 40,

and sometimes 50 feet apart. This is a mistaken policy, and I believe in closer planting, particularly for profit. The trees afford each other a mutual protection. The shade is a good mulch, and the best apples grow on trees that have the space under them shaded. Again, at 40 feet we have 27 trees per acre; at 30 feet 49; at 25 feet 75;at 20 feet 108. But little additional cultivation is required for the acre containing 75 or 108 trees beyond that given the acre of 27 or 49 trees :while nothing additional is required for fencing, taxes, etc. The pride and profit of a well cultivated orchard are under 20 or 25 years of age .-Most of our valuable varieties up to 20 or over 25 years, will bear as much per tree and as good fruit at 20 or 25 feet apart as at any greater distance.

VARIETIES.

In the selection of varieties, my list would be governed by the object sought. Were I selecting for a small orchard, for my own home use, with a few to spare to appreciating customers, my list would be somewhat different from a list specially designed for market or commercial purposes. In the former case I should aim at apples eminently fit to be eaten, and excellent for pies, baking, and general culinary purposes all the year round, ripe in every month in the year, without being over ripe, at all times being in the height of excellence and perfection of flavor. I should pay less regard to size and color, and more to quality.

In selecting for MARKET, regard must be had to the demands of the market you expect to enter, and the means of transportation thereto. We should combine, as far as possible, the following qualities: Early in coming into bearing, hardy and productive, and good form for picking, bright of color and good size. Good quality is of course desirab e, and it is laudable to educate the taste to appreciate excellence above mere show, yet I feel compelled to say that my experience is, that the apple possessing appearances attractive to the eye, though of rather inferior quality, will be taken, while the better apple, with less attractions will be left.

To be classed as a good market apple, it should ripen evenly, hold well to the tree, and be sufficiently firm for carriage. All of these good qualities of both tree and fruit, we are aware are found in but few varieties. When we cannot combine them all, we have only to appropriate as many as possible. I think the commercial orchardist, who is favorably situated for being in the market during the entire season, should aim to keep a succession of fruit. He is thus kept before the public without a break; is more like-

ly to have good and desirable help, by keeping it constantly employed."

[The most popular apples for winter and commercial pur poses in the Michigan and New York markets, are

Baldwin,
Spitzenberg,
Rhode Island Greening,
Roxbury Russet,
Northern Spy,
Seek-no-Further.

All of these command a high price, are good keepers, and contractors will come to a farmer's orchard in order to secure them.

Cultivation of Apple Trees.

A correspondent of the Boston Cultivator says I saw in your paper several questions in regard to setting apple trees, and I will answer some of them. Apple trees do best on stony land, a little rolling. On such land, in good condition, set the trees three feet apart each way. Dig the holes for the trees, three feet deep and three ft. square; then fill them to the right depth for the trees with good sod, and a little unslacked lime. As to manure, good hog-manure is best. Be sure not to set the trees any deeper than they naturally grew. If you set them on light and sandy soil, mix gravel with the soil, to draw moisture.

Lime that is slacked is good to mix with the soil. The reasons for digging the holes large, is to have lose earth round the roots, which will cause the trees to grow better. If set nearer than three feet apart, the limbs will cross each other, after they are well grown. I have an orchard of sixty-five young trees. Last year I put tobacco on the land, and plenty of chip manure round each tree. This manure is good for trees. I don't think it makes any difference about their being sheltered from the wind, if the land is good where they stand. Set as straight trees as you can, and if they grow crooked, slit the bark in the hollow or curve, in June, and the trees will become straight.

Starting Delaware Grape from Cuttings.

A correspondent of the Country Gentleman says:—A. S. Moss wishes some one to give the "modus operandi" for starting Delaware cuttings in open air. Two years ago I tried it with partial success. Last season I saw a method by which almost every cutting was started. Cut your cuttings in November, so that they will not be injured by frost, and bury them till April.—Now the trouble with the Delaware wood is its hardness to root. To overcome this, lay them in tiers with dirt between, having the bottom of the cuttings toward the sun, in some warm locality, and water them occasionally. In this way you will get the roots partially started before the buds. No fears need be entertained concerning the buds starting. As soon as the roots are fairly

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tarted, place them in beds, the cuttings having bout two inches space between them, and water them faithfully. This is one of the difficulties of them faithfully. starting cuttings of any kind with most of per-sons—they do not give them water enough. After the bud is fairly started they should be shaded in the hottest days.

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ST. JOSEPH COUNTY.

Fruit-Cranberry Culture-Crops, &c.

The St. Joseph Traveler gives the following ketches and advice about the "Fruit Garden of Michigan :"-

Fruit.

There is a great activity this spring among nurserymen. Fruit trees seem to be in in great denand-we judge much greater than the supply. The severe weather of the past winter does not eem to have discouraged our fruit growers in the least; and indeed there is no reason why it should do so. On the contrary, every effort should be made to get out the greatest possible number of good trees that can be planted in good order. But great care should be taken to get varieties of fruit which, when sent to market, will do credit to the St. Joseph fruit growing region.

At present we shall have no competitor, but that is no reason why the best varieties of fruit trees should not be planted. Let every available rod f ground have something productive growing on If you cannot plant trees, put out strawberry, raspberry, or blackberry vines. All will pay. One acre in strawberries will pay from \$300 to

\$500 if well cultivated.

It has often been a matter of surprise to us that so many lots in this village are unoccupied by a single tree, shrub or vine that will produce mything valuable or beautiful, and lots too, many of them which their owners have occupied for many years. It is, to say the least, very bad

Cranberry Culture.

The culture of this fruit has been proven to be entirely feasible in many localities, and we believe there are many acres of marsh lands in this ticinity which can be profitably devoted to the growing of this berry, which always commands a high price in market. Mr. M. Teetzel of this rillage has about half an acre of land devoted to their culture in the township of Benton, which how promises to yield very large profits on the

Last week we made a careful inspection of this round with Mr. Teetzel in person. The land is ordinary marsh land. The first step in its preparation was to take off the surface to the depth of perhaps one foot. This new surface was then covered with a thin stratum of dry sand. The

tained from marshes wherever they can be found, and are set in rows about ten inches or a footthe plants in the rows standing very near together. The stratum removed was converted into an embankment surrounding the field, between which and the field itself, a shallow trench is left so that a small stream of water can be kept running round it when advisable. A small creek running near is turned on to the field at pleasure by means of a dam and aqueduct, so that it can be submerged to any desirable depth; the water being afterward conducted off by another acque duct. Whatever risk the enterprising proprietor may have run at first, there is no longer any doubt that it will soon begin to pay him a good "dividend."

The Crops.

Having business last week in Benton, Bainbridge, Watervliet and Hagar townships, we took occasion to look somewhat closely at the wheat and also to observe the preparations making for spring crops.

Early sowed wheat looks well and now promises a good crop considering the openess of the winter. Late sowed wheat will be, from present ap-

pearances, below an average crop.

Potatoes are already in the ground in some lo-We are glad to see this and hope our farmers will plant this vegetable largely. It will be a profitable crop if during the next year, it commands half its present price. Every kind of vegetable will sell well during the coming year. Besides if you have more than you can well dispose of in the ordinary markets, the Sanitary Commission will gladly accept them. We advise farmers to plant largely of roots-such as carrots and especially turnips. Oats are hardly a paying crop on our sandy lands, but roots on new ground grow thriftily, and are excellent food for horses and cattle as well as for the table.

We enjoin especially upon the farmers to be careful in saving everything which can be used for fodder. Plant a good breadth of corn and take good care of the stalks. Every load which you do not need will bring the money at highly remunerative prices. Get all the crops into the ground you can and trust in Providence for their harvesting. If labor is scarce, work the harder. Sell the crops on the ground to those who must have them and let the consumer do part of his own harvesting. In many instances this will not be found impracticable.

TO KEEP RABBITS FROM FRUIT TREES .- In summer peel the bark from walnut or other bushes a little larger than your trees take a sharp knife, cut around the bush the desired length, say about 15 or 18 inches apart—then cut lengthwise, peel it off and place it on your trees while green.— This will prevent a great many insects from climbing the tree—they will be deceived by this false field is then ready for the plants which are ob- | bark, milhbian bas "boog ylborg" balls od yest

CALIFORNIA AS A VINELAND.

It has been reserved for California, from the plentitude of her capacities, to give to us a truly great boon in her light and delicate wines.

Our Pacific sister, from whose generous hand has flowed an uninterrupted stream of golden gifts, has announced the fact that henceforth we are to be a wine-growing people. From the sparkling juices of her luscious grapes, rich with the breath of an unrivalled climate, is to come in future the drink of our people. By means of her capacity in this respect we are to convert the wast tracts of her yet untilled soil into blooming vineyards, which will give employment to thousands of men and women,—we are to make wine as common an article of consumption in America supon the Rhine, and to break one more of the links which bind us unwilling slaves to foreign lands.

It is a little singular, that, in a country so particularly adapted to the culture of the grape, no species is indigenous to the soil. The earliest record of the grape in California is about 1770, at which time the Spanish Jesuits brought to Los Angeles what are supposed to have been cuttings from the Malaga. There is a difference of opinion as to what stock they originally came from; but one thing is certain,—from that stock has sprung what is now known all over the State as the "Mission" or "Los Angeles" grape, and from which is made all the wine at present in the market. The berry is round, reddish-brown while ripening, turning nearly black when fully ripe.—It is very juicy and sweet, and a delicious table-

grape.

Three prominent reasons may be given in support of the claims of California to be considered a wine-producing State. First, her soil possesses a large amount of magnesia and lime, or chalk .-Specimens of it, taken from various localities, and carried to Europe, when chemically tested and submitted to the judgement of competent men, have been pronounced to be admirably adapted to the purposes of wine-culture. Then, the climate is all that could possibly be desired,-as during the growth and ripening of the grapes they are never exposed to storms of rain or hail, which often destroy the entire crop in many parts of Europe. As an evidence of the great superiority enjoyed by California in this respect, it may be remarked, that, while the grape-crop here is a certainty, "the oldest inhabitant" not remembering a year that has failed of a good yield,-in Europe, on the contrary, in a period of 432 years, from 1420 to 1852, the statistics exhibit only 11 years which can be pronounced eminently good, and but 28 very good,-192 being simply what may be called "pretty good" and "middling," and

201, or nearly one-half, having proved total failures, not paying the expenses. Again, the enormous productiveness of the soil is an immense advantage. We make on an average from five hundred and fifty to six hundred and fifty gallons of wine to the acre. The four most productive of the wine-growing districts of Europe are—

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Italy, giving to the acre

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Of these, it will be perceived, that Italy, the most prolific, fall fully one hundred and fifty gallons short of the average yield per acre in California. In this connection the following account of a grape-vine in Santa Barbara may be interesting:

"Four miles south of the town there is a vine which was planted more than a quarter of a century since, and has a stalk now about ten inches thick. The branches are supported by a train or arbor, and extend out about fifty feet on all sides. The annual crop of grapes upon this one vine is from six to ten thousand pounds, as much as the yield of half an acre of common vines. It is of the Los Angeles variety. There is a similar vine, but not so large, in the vineyard of Andres Pico at San Fernando."

It is well known that California has within her borders five million acres of land suitable for vine-culture. Suppose it to average no larger yield than that of Italy, yet, at 25 cents a gallon, it would give an income of \$551,875,000. That this may not seem an entirely chimerical estimate, it may be remarked that trustworthy statistics show that in France five millions of acres are planted in vines, producing seven hundred and fifty millions of gallons, while Hungary has three millions of acres, yielding three hundred and sixty millions of gallons. If it is asked, Supposing California capable of producing the amount claimed for her, what could be done with this enormous quantity of wine? the answer may be found in the experience of France, where, notwithstanding the emmense native production, there is a large importation from foreign countries, besides a very considerable consumption of to kennt all as purely artificial wines.

Small quantities of wine have been made in California for over half a century, by the Spanish residents, not, however, as a commercial commodity, but for home-consumption, and there are wines now in the cellars of some of the wealthy Spanish families which money could not purchase. But it remained for American enterprise, aided by European experience, to develop the wonderful capacity which had so long slumbered in the bosom of this most favored land.

The following statistics exhibit the total num-

ber of vines in 1862, and the great increase in the last five or six years will show the opinion entertained as to the success of the business.

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"The number of grape-vines set out in vineyards in the State, according to the Report of the County Assessors, as compiled in the Surveyor-General's Report for 1862, is 10,592,688, of which number Los Angeles has 2,570,000, and Sonoma 1,701,661.

"The rate of increase in the number and size of vineyards is large. All the vines of the State did not number 1,000,000 seven years ago. Los Angeles, which had three times as many vines surviving from the time of the Mexican domain as all the other counties together, had 592,000 bearing vines and 134,000 young vines in 1856.—The annual increase in the State has been about 1,500,000 since then; and though less hereafter, twill still be large.

"The wine made in 1861 is reported, very incorrectly, by the County Assessors, as amounting to 343,000 gallons. The amount made in 1862 was about 700,000 gallons. The total amount made in all other States of the Union in 1859, according to the United States census, was 1,350,000 gallons; and the same authority puts down California's wineyield for that year at 494,000 galions, which is very nearly correct. In Los Angeles County most of the vineyards have 1,000 vines to the acre. In Sonoma the number varies from 780 to 1,000. The average number may be estimated at 900; and the 10,000 vines of the State cover about 11,500 acres. An acre of California vineyard in full bearing produces at least 500 gallons annually, and at that rate the produce of the 11,500 acres would be 5,750,000 gallons.— Strike off, however, one-third for grapes lost, wasted, and gathered for the table, and we have an annual produce of 3,800,000 gallons. The reason why the present product is so far below this amount is that most of the vines are still very young, and will not be in full bearing for several years yet?"

The cost of planting a vineyard will of course vary with the situation, price of labor, quality of soil, etc., but may be estimated at not far from fifty dollars an acre. This includes everything except the cost of the land, and brings the vines up to the third year, when they are in fair bearing condition. There are thousands of acres of land scattered over the State, admirably adapted to vine-culture, which may be purchased at from one to two dollars per ace. No enterprise holds out more encouragement for the investment of labor and capital than this, and the attention of some of the most intelligent capitalists of the country is being given to it. In this connection I cannot forbear referring to the action of the

Government in regard to our native wines. By the National Excise Law of 1862 a tax of five cents a gallon was laid upon all wine made in the country. No tax has yet been laid upon agricultural productions generally, and only three per cent. upon manufactures. Now wine certainly falls properly under the head of agricultural productions. Upon this ground it might justly claim exemption from taxation. The wine-growers of California allege that the tax is oppressive and impolitic: oppressive, because it is equal to onefourth of the original value of the wine, and because no other article of production or manufacture is taxed in anything like this proportion; impolitic, because the business is now in its infancy, struggling against enormous difficulties, among which may be mentioned the high price of labor, rate of interest, and cost of packages, making it difficult to compete with the wines of Europe, which have already established themselves in the country, and which are produced where interest is only three per cent. per annum, and the price of labor one-quarter of what it is in California .-In addition to this there is the prejudice which exists against American wines, but which, happily, is passing away. The vintners ask only to be put upon the same footing as manufactures, namely, an ad valorem tax of three per cent; and they say that the Government will derive a greater revenue from such a tax than from the one now in force, as they cannot pay the present tax, and, unless it is abated, they will be obliged to abandon the business. Efforts are being made to induce Congress to modify it, and it is to be hoped they will be successful. and a till a stante

In 1861 California sent a commissioner to Europe, to procure the best varieties of vines cultivated there, and also to report upon the European culture generally. The gentleman selected for the mission was Colonel Haraszthy, to whom I am indebted for many of my statistics, and who has given us a very interesting book on the subject. He brought back a hundred thousand vines, embracing about fourteen hundred varieties .---These were to have been planted and experimented upon under the auspices of the State. What the result has been I am unable to say; but we are informed upon good authority that over two hundred foreign varieties are now successfully cultivated. Such being the fact, it is a fair presumption that we are soon to make wines in sufficient variety to suit all tastes. OR REAL BRIDE SHIP

Los Angeles is at present the largest winegrowing county in the State, and Sonoma the second. Many other portions of the State, how t ever, are fast becoming planted with vineyards, and some of them are already giving promise of furnishing superb wines. As usual in wine-growing countries, in the southern part of the State the wines are richer in saccharine properties, and heavier-bedied, than those of the more northern sections, but are deficient in flavor and bouquet. We shall get a lighter and tarter wine from the Sonoma and other northern vineyards, which will please many tastes better than the southern wines. The two largest vineyards in the State are owned by Colonel Haraszthy, of Sonoma, and John Rains, of San Gabriel. The former has two hundred and ninety thousand vines, and the latter one hundred and sixty-five thousand. It is probable that from one of these vineyards at least will come a good Champagne wine.

A large tract of land, to which has been given the name of "Anaheim," has been recently purchased by a German company. It is sold to actual settlers in lots of twenty acres, affording room for twenty thousand vines. There are now planted nearly three hundred thousand, which are in a very flourishing condition. The wines from this district will soon be in the market.

The wines now made in California are known under the following names: "White" or "Hock" Wine, "Angelica," "Port," "Muscatel," "Sparkling California," and "Piquet." The character of the first-named wine is much like that of the Rhine wines of Germany. It is not unlike the Capri bianco of Naples, or the white wines of the South of France. It is richer and fuller-bodied than the German wines, without the tartness which is strongly developed in nearly all the Rhenish varieties. It is a fine wine, and meets the approval of many of our best connoisseurs .-Specimens of it have been sent to some of the wine-districts of Germany, and the most flattering expressions in its favor have come from the Rhine. The "Angelica" and "Muscatel" are both naturally sweet, intended as dessert-wines, and to suit the taste of those who do not like a dry wine. They are both of a most excellent quality, and are very popular. The "Port" is a rich, deepcolored, high-flavored wine, not unlike the Burgundies of France, yet not so dry. The "Sparkling California" and "Piquet" are as yet but little known. The latter is made from the lees of the grape, is a sour, very light wine, and not suitable for shipment. Messrs. Sainsivain Brothers have up to the present time been the principal house engaged in the manufacture of Champagne. So far, they have not been particularly successful. This wine has a certain bitter taste, which is not agreeable; yet it is a much better wine than some kinds of the foreign article sold in our markets .-The makers are still experimenting, and will, no doubt, improve. It is probable that most of the good sparkling wine which we shall get from California will be made in the northern part of the

State; the grapes grown there seem to be better adapted to the purpose than those raised in Los Angeles. There is no doubt, too, that the foreign grape will be used for this branch of the business, rather than the Los Angeles variety. All that isrequired to obtain many other varieties of wine. including brands similar to Sherry and Claret, is time to find a proper grape, and to select a suitable soil for its culture. Considering the short time which has elapsed since the business was commeuced, wonders have been accomplished. It has taken Ohio thirty years to furnish us two varieties of wine, while in less than one-third that time California has produced six varieties, four of which are of a very superior quality, and have already taken a prominent position in the estimation of the best tastes in the country.

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In 1854, Messrs. Kohler and Frohling commenced business in Los Angeles, and shortly after opened a house in San Francisco. They were assisted by Charles Stern, who had enjoyed a long and valuable experience in the wine-business upon the Rhine. The vintage was very small and inferior in quality, as they had had no experience in making wine from such a grape as California produced. Numberless difficulties were met with. and it was only the indomitable energy of the gentlemen engaged in the enterprise, sustained by a firm faith in its ultimate success, which brought them triumphantly out of the slough of despond that seemed at times almost to overwhelm them. They have to-day the satisfaction of being the pioneers in what is soon to be one of the most important branches of industry in California.-They own one of the finest vine-yards in the State, from which some magnificent wine has been pro duced. They have contracts with owners of other vineyards; and after making the wine in their own, the men and machinery are moved into these, the grapes pressed, and the juice at once conveyed to their cellars, they paying the producers of the grapes a stipulated price per ton on the vines. The vintage commences about the first of October, and generally continues into November. The labor employed in gathering the grapes and in the work of the press is mostly performed by Indians. It is a novel and interesting sight to see them filling up to the press, each one bearing on his head about fifty pounds of the delicious fruit, which is soon to be reduced to an unseemly mass, and yield up its purple life-blood for the benefit of man. Some of the wine made in the State is from the "Asuza" and "Sunny Slope" vineyards, both of which lie directly at the foot of the Sierra Nevada Mountains. From s small beginning Messrs. Kohler and Frohling have steadily progressed, till at this time their position is a very enviable one. Their cellars, occupying

the basement of Montgomery Block, excite the admiration of all who visit them, and their wines are more favorably known than those of any other vintners. Agencies have been established in New York and other cities, under the supervision of Mr. Stern, and the favor with which they have been received has settled the fact that the wines of California are a success. It only remains for the vintners to keep their wines pure, and always up to the highest standard, and to take such measures as shall insure their delivery in a like condition to the consumers, to build up a business which shall eclipse that of any of the great houses of Europe. Thus will the State and nation be benefited, by keeping at home the money which we annually pay for wine to foreign countries, and the people will be led away from the use of strong, fiery drinks, to accept instead the light wines of their native land .- Atlantic Monthly.

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HINTS ON TREE PLANTING.

The season best adapted for transplanting trees is a matter open to much difference of opinion among horticulturists, a difference founded mainly in experience but without taking into account variation of climate and soils, two very important clicumstances in all operations of this kind.

commatances in all operations of this kind.

It is generally admitted, we believe, that the best season for transplanting deciduous trees is early in the autumn and in aprile before the buds begir to expand, may, as a general rule be ensidered the best senson for transplanting. Epring planting should always be performed as soon as possible, that the roots may have the benefit of the great rains of the season, and get started before the heat of summer commences. In this section (southeastern New York.) therefore, the best periods are from the fall of the leaf to the middle of November in the autumn, and from the close of March to the middle of April in the spring; though commonly the sasons of removal are frequently extended a month beyond these limits. [We have sees fruit trees planted on the cold surface with a firm clay subsoliabout the latter part of May in Michigan and obtain a luxurious growth, especially where the roots were well watered and a peck of sawdust applied on the surface to keep it most.]

Trees planted in antumn, are then in a completely dormant state. Transplanted at this season, whatever may be broken in the roots commence healing at once, as a deposit directly takes place of granulous matter from the wound, and when the spring arrives the tree is already somewhat established, and ready to commence growth. Autumn planting is for this reason greatly to be preferred in all mild climates and dry soils, and even for very lurdy winter trees, as the Apple, the Maple, and Elm, in colder latitudea, as the fixed position in the gr und, which trees then get by the autumnla and early apring rains, give them and wantage at the next season of growth over the newly moved tree.

On the other hand, in northern porti ns of the country where

ed tree.

On the other hand, in northern porti ns of the country where winters commence early, and are severe spring planting is generally preferred. These antumns and winters are not mild enough to allow this gradual process of healing and establishing the roots to go on; for when the ground is frozen to the depth of the roots of a tree, all the slow growth and the collection of nutrimentiby the roots is necessarily at an end. And the more tender sorts of fruit trees, the peach and apricot, which are less hardy when newly planted than, when their roots are entire and well fixed in the soil, are liable to injury in their branches by the cold. The proper time in such a climate is as early as the ground is in a fit condition in the Spring.

TAKING UP THE TREES.

TAKING UP THE TREES.

This is an important part of the operation. Take up the trees with a good many but not very long roots. If any of the roots are badly mutilated, cut them off with a sharp knife. Rew roottets will very soon start if you set them well, filling in carefully with a fine top soil. No strong manure should be added. If the soil is decidedly poor, a few shovelfuls of garden soil, or what is better, leatmould taken from the woods, would be a valuable addition. Let the tree at least stand as high as it did before, and in order to keep it firm in its position, place large stones on the roots, or secure it to atakes until the roots get a firm hold. Apply very little water at the time of setting—none unless the ground is quite dry. More tieses are injured by over watering than by the want of water in transplanting. What the tree wants the first summer is a

moderately rich soil and an equal degree of moisture. It should be neither baked nor drowned, and to secure it against either it should be set quite as high as it stood before; the ground should be loosened a toot below its roots, that the wa-ter of heavy rains may freely pecolate through, and the sur-face should by all mean- be mulched to prevent evaporation.

PREPARING THE PLACES.

face should by all means be mulched to prevent evaporation.

PREPARING THE PLACES.

Here is the fatal stumbling block of all novices and ignorant persons in transplanting. No tree should be planted in a hole of less size than three teet in diameter, and eighteen inches to two feet in depth. To this size and depth the soil should be removed and well pulverized, and it should, if necessary be properly enriched, by the application of well rotted manure or leaf-mould, which is preferred, which should be theroughly mixed with the whole mass of the prepared soil, by repeated tarnings with the spade. This preparation will answer, but the most skillful tree planters make their spaces 4 or five feet in diameter, or three times the size of the roots, and it is incredible how much the luxuriance and vigor of growth, even in a poor soil, is promoted by this. Its effects on the growth and health of the tree are permanent, and the little expense and care necessary in this preparation is a source of early and constant pleasure to a planter.

The whole art of transplanting after this consists in placing the roots as they were before. Begin by filling the whole with the prepared soil, within as many inches of the top as will allow the tree to stand exactly as deep as it previously stond. With the spade shape this soil for the roots in the form of a little hollow; the roots will then extend in their natural position, not being forced to turn up as the ends. Next examine the roots and cut off all wounded points and paring the wound smooth. Hold the tree upright onts little mound in the hole of the prepared soil; ext-not the roots and cover them carefully with the remaining soil. As much of the success of transplanting depends on bringing the soil in contact with every fibre, so as to leave no hollow to cause the decay of the roots, not only must this be secured by patiently filing in the cavities among and under the roots, hour in a pall of water when the roots are nearly covered with soil. This carries the liquid mould to every try Gent.

WORK FOR MAY.

As the warm weather progresses, the gardener should be on the alert, in order to conquer the various kinds of insects. Burn damp litter, stubble, leaves, weeds, &c. near fruit trees, and sow ashes over the ground. Attend to plantations of Cabbages, Cauliflower, &c.; hoe them frequently, and draw earth up to their stems; look out for and destroy grub-worms, caterpillars, and other insects, weed and thin the early plantings of beets, carrots, parsnips, salsify, &c., and destroy weeds, to prevent their seeding in the ground. Plant and sow such kinds of seeds as were omitted last month, and transplant cabbages, egg-plants, tomatoes, &c. from hot-beds and warm borders. Plant beans and beet, sow Borecole, Brussels sprout seed, broccoli, cauliflower, cabbage seed, carrot, cress, plant cucumbers, sow endive seed, plant indian corn, melon, water melon, sow mustard seed, plant nasturtiums and okra, pepper, plant peas, potatoes, sweet potatoes, pumpkins, sow radish seed, sorrel, squash, tomato. In the early part of this month, finish sowing all kinds of aromatic, pot, sweet and Medicinal herbs. Sow all kinds of Flower seeds in the early part of the month, mow lawns and grass walks, destroy weeds, remove decayed plants, support tall flowering plants, attend to green-house plants, and water them frequently. Plant Dahlia roots in ground well prepared, Tuberoses, Tiger Flower roots.

Grape Vines and other choice trained fruits should be attended to this month. Divest them of all useless and unhealthy shoots. If Peach trees set too thick, the fruit should be thinned.

The True Value of a Greenback Dollar.

The popular mind is abused, to a great extent, with a false idea of the true value in gold of a dollar of our present circu lating medium. Many persons who have noticed gold quoted at, for instance, 60 per cent. premium. were of the opinion, that their dollar greenback was worth in gold just as many cents less the dollar .- That this notion is erroneous is easily proven. A dollar gold piece when, worth 60 per cent. more than a dollar Treasury note is evidently 160-100ths of the latter, which is worth 100-160ths of the gold dollar, or 62%c. in gold.—The proof of this is, that 62%c. plus 60 per cent. of itself, or 87%c, is equal to one dollar. We think think this explanation will considerably enrich, in their estimation, many persons who think that, when gold is at 60 per cent. premium, their dollar in Treasury currency is worth only 40 cents in the precious metal. The following table, showing the precise value of paper in gold with the latter at various points of premium, may be of interest to many.

Gold at	1945	7	Treasury	Notes	WO	rth
110				90	10 1	1c.
120				83	18	c.
180				76	12-1	Se.
140				71	3-7	C
150				66	2-3	C.
160				62	1-2	C.
170		**********		58	14-1	Te.
180	*******		*************	55	5-9	C.
200				50a.	-	10.00
-Boston I						2,

How to make Soap, Soft and Hard.

I frequently see directions in papers for making soap, but I never yet saw any that possessed common sense. The best and cheapest article to make soap with is common house ashes; when that cannot be obtained, potash is the next best. But some people say they never have any "luck" making soap. Now I humbly submit that there is no luck about it. If your lye is pure and of the proper strength, and your grease clean you cannot boil them together without making soap. But how about the parity of your lye? Every tyro in chemistry knows that carbonic acid gas is one of the most abundant products of nature. Now carbonic acid gas will not mix with grease. Wood ashes have a great affinity for carbonic acid gas, particularly such as get damp or lay near the ground. as a natural consequence, absorb it, and when the lye is run off, it is not caustic potash, but a carbonate of potash, which, as I said before, will not mix with grease; therefore, it is that some housekeepers have so much trouble in making soap. Now fresh burnt lime has a stronger affinity for carbonic acid than wood ashes, consequently where lime in sufficient quantity is used in the leach, it absorbs all the carbonic acid and leaves the lye pure or caustic, and then it is sure to make Now all kinds of wood ashes contain potash in some proportion; some kinds contain more than others, if you can get the lye strong enough to bear an egg or potate, either by boiling or by mixing and letting it stand to make what is called cold soap. I would advise everybody that intends to make soap to procure one bushel of fresh burnt lime for every ten bushels of house ashes, even if the ashes are dry and clear. slack the lime and mix with the makes; fill your leach, and as long as your lye is strong enough to bear an egg you cannot fall to make soap. If your sakes are too poor in potash the lye will not bear an egg you can save the lye to put in a fresh leach or you can boil it down until it will bear an egg.

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If you have no wood ashes and are compelled to use potash, it is a matter of economy to still use lime, for common potash is not caustic enough to make soap to advantage, without lime. The best way is to take a peck of fresh burnt lime for every ten pounds of potash; put the lime in a keg, diasolve, the potash in water and leach it through the lime; he sure it is strong enough, and then proceed with your soap.

There can be no directions given as to the proportions of grease and potash. That depends upon the strength of the potash and purity or cleanliness of the grease. The only test I know is the tongue. If by touching a little to your tongue from the tip of your finger it tastes very strong of lye it wants more grease; if mild it wants more lye. It is a good plan to leave your soap pretty strong of lye when you finish it or class when you come to use it, it will not make good suds.

The above directions are of course for soft soap. Potash and grease make soft soap; soda and grease make hard soap; If after you have made good soft soap you wish to convert it into hard soap you can do so very easily by adding common salt until, by taking up some of the soap on a paddle, you can see the lye run from the paddle clear like water. Then let it stand until it settles, when you can take the soap off the lye. But to make good hard soap it should be worked over two or three times, each time with good fresh strong lye. In this case of making hard soap with potash, where you use salt, the chloride of the soda unites with the potash and forms chloride, of potash which remains in the kettle, called salt lye, and leaves the soda free to unite with the grease to form hard soap.—Prairie Farmer.

Wash for Buildings and Friers.—Mix three pecks of good fresh water lime with one peck of very fine and clean sand and half a peck of salt. Add water enough to make a good wash, and apply with a brush, stirring it frequently. A single coat will last several years, especially if applied to rough boards. There is no kind of wash, however, and probably never can be, that is equal in durability and perfection to oil paint, through which water can never pass, while all the different washes are soaked through by every long rain. The creases its durability, and if occasionally repeated when needed, is scarcely inferior in this respect to oil paint.

AMERICAN WHITEWASH.—Slack half a bushel of lime withboiling water, and cover the vessel to retain the steam. Strain the liquor, and add one peck of salt previously dissolved in warm water, three pounds of rice boiled and ground to a paste; Spanish whiting, eight ounces; glue, one pound. Mix and add hot water, five gallons. Let stand a few days, and applyhot. It makes a brilliant wash for inside or outside work.

A Good Substitute for Buckwheat Cares.—To three pints of warm water add a dessert spoonful of salt, three fable-spoonfuls of good yeast, and stir in middlings (coarse flour) to the consistency of thick batter; let it stand over night, and if a little sour in the morning, add a little soda dissolved in warm water, and bake as you would any other paneakes. They are a nice healthy dish for breakfast, and not so injurious as buckwheat. Try them.

RAISED BISCUIT.—Take a pint bowl full of light dough; break into it a fresh egg, and add a piece of butter the size of an egg. Knead in these until perfectly incorporated into the dough. It will require about ten minutes. Boll it out an indu thick, and cut it into biscuits. Lay them upon a tin sheet or baking pan, and let them rise in a moderately warm place. They will become very light, and should be baked in a quick stove, baker or oven. They will bake in twelve or fifteen minutes, and are injured by being baked very slowly. Very nise eaten fresh, but not hot. This measure will make about two dozen. They are not so good the next day as biscuit made without an egg

THE MICHIGAN FARMER.

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DETROIT, MAY, 1864.

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TO POSTMASTERS.

We often receive returned papers, with merely the name of the subscriber upon them, and not the town, in such cases it is difficult to find them, as we are obliged to go over 200 pages of names. Will they please to add the name of the Post Office.

"Postmasters are responsible for the subscription of a newspaper or magazine, as long as they allow it to be received at their office, after it is uncalled for, or refused by the person to whom it is directed. The Postmaster General requires that a written note shall be sent to every publisher, that his paper of works lie dead in that office."

HON. JOHN WENTWORTH'S EASY MODE OF PRODUCING CHESTER WHITE PIGS.

This gentleman while doing much good to the cause of stock-breeding, has always had a great mania on the question of hogs. He exhibited his porkers to the Prince of Wales during his visit to the United States, with the remark, it is said, "That if the breed was not good, it is your father's fault, for I got them from his stock"he has lately presented a splendid Suffolk boar to the Agricultural College of this State, one of the best of the kind, undoubtedly; to be had in the country. At the same time making the declaration that-

"From the cross of the Suffolk hogs upon the common hogs of the country are produced the best of Chester Whites."

This we consider an absurdity and hardly worth a denial, as the Chester White, is now no doubt, after thirty or forty years of in-and-in-breeding, as distinct a breed of hogs as at present exists, the prominent and marked points of which arelength and depth of carcass, their clean skin, white hair, small offal, and great ease in fattening-which makes the most desirable pork stock that a farmer can have upon his lands.

Professor Miles has acknowledged the gift, and inadvertently, through courtesy to Mr. Wentworth, seemingly acquiesced in his suggestionwhereupon, some of the Illinoisians become exceedingly profound upon the hog question, asking

"What are the common hogs of the country? Are they China, Suffolk, Berkshire, Bedfordshire, this certain would be, in the spying, to pass a rel-Cumberland, Yorkshire, Woburn, Irish, the pre-26

geny of the wild French and Indian hog, or the veritable Land Pike so graphically illustrated from time to time in the agricultural journals? What will be the color of the progeny? Will they be white, black, blue, grey, sandy or a com-bination of colors and shapes? Will the same rule work applied to cattle, sheep and horses? taking for instance the Kerry, 'the beginning of cattledom,' as one starting point."

This attempt to "make a mountain of a mole hill" only commands our notice so far as Professor Miles is concerned, who we will venture to assert, entertains no such idea in fact as promulgated by Mr. Wentworth, but being a thorough and able scholar, and withal a most courteous gentlemen, without due consideration, while thanking Mr. W. for the gift, allowed himself to apparently endorse the donor's easy mode of produc-

ing "the best Chester Whites."

It was a faux pas hardly worthy of notice unless some of our more western friends had made such a flourish of trumpets over the fact that one of their own breeder's declarations, should make an "impression" upon a professor of the Michigan State Agricultural College.

There is no necessity for even trying Mr. Wentworth's easy mode at Lansing, as the College is now well provided with both breeds of hogs, as Mr. S. A. Bushnell, of Hartford, Ohio, sometime since presented it with a pure bred Chester White sow, which desirable breed he has most successfully raised and introduced throughout the Westhis stock took all the first premiums at the Michigan State Fair for 1862, and we have awarded a pair of his superior breed as a Michigan Farmer premium, to Mr. Harrison, of Wayne. We believe this to be one of the best breed of hogs for the farmer, and have, therefore, used our fullest endeavors to have it introduced throughout this State. We have been successful, at the State Fair of 1863, the Chester White was a prominent feature among the pork stock.—w. s. B.

Drilling Wheat.

We are convinced that putting in wheat with a drill is not only the preferable plan, but that a great saving of seed may be effected by it, and an increased produce obtained. To sow a hundred acre field broadcast, as it ought to be, will require 200 bushels of seed; whereas 125 bushels. if put in with the machine, will answer fully as well, thereby saving 75 bushels in 100 acres.-The ridge raised by the machine protects the plant through the winter; and in spring, if the roots should be thrown out, many, if not most of will be covered by the crumbling down of the ridges. All that would be necessary to render

the ground, and the soil dry, as the compression of the ridges would necessarily cover up most of the roots that might be found exposed upon the surface, and thus insure their taking root and growing. Besides, the intervals between the drills would secure a free circulation of air thro' the plants while growing, and be particularly serviceable in preserving, to a great extent, the grain from rust. If the cause of this disease be atmospheric, and some believe it is, the free circulation of air would not fail to be productive of the good claimed for it. ated by Mr. Wentworth

rian superruo FLAX CULTURE, ralo les elda ha

The "Canada Farmer," publishes a circular issued by the North-East Agricultural Association of Ireland, containing the proper directions for the proper management of the flax crop. As the season is at hand our readers may profit by it, and devote an acre or more to the cultivation of this very necessary and useful crop. Allowance must be made for the difference in the season in this country and Ireland. In Michigan, especially the northern portion, sowing in May will get a good crop : oft an anished to about year a ano

SOIL AND ROTATION.

By attention and careful cultivation, good flax may be grown on various soils; but some are far better adapted to it than others. The best is a sound, dry, sleep loam. It is almost essential that the land should be properly drained and subsoiled; as, when it is saturated with either underground or surface water, a good crop need not be expected. The subspiling should be executed the year of the green crop, so as to be completed at least two years before the flax is grown.

. The hest rotation is to grow after wheat, on average soils; but on poor soils where wheat does not succeed, it is often better to grow after potatoes. Flax should on no account be grown oftener than once in five years, and once in seven, or even ten, is considered safer.

Any departure from the system of rotation is likely to cause loss and disappointment.

THE PREPARATION OF THE SOIL. THE SAME

One of the points of the greatest importance in the culture of flax is by thorough draining, and by careful and repeated cleansing of the land from weeds, to place it in the finest, deepest; and cleanest state. This will make room for the roots to make room for the roots to penetrate to one-half the length of the stem above ground, guards total

After wheat, one ploughing may be sufficient on light, friable loam, but two plowings are betten and on stiff soils three are advisable-one immediately after harvest, across the ridges, and two in spring, so as to be ready for sowing in the

first or second week of April. Much will, of course, depend on the nature of the soil, and the knowledge and experience of the farmer. The land should be so well drained and subsoiled that it can be sown in flats, which will give more even! and much better crops. But, until the system of thorough draining be general, it will be advisable to plow early in autumn to the depth of 6 or 8 inches. Throw the land into ridges, that it may receive the frost and air; and make surface drains to carry off the roins of winter. Plow again in spring, three or four inches deep, so as to preserve the winter surface for the roots of the flax. The spring plowing should be given sometime before sowing, to allow any seeds of the weeds in the land to vegetate, and the harrowing in of the flaxseed will likely kill them, and save a great deal of after weeding. Following the last harrowing, it is necessary to roll, to give an even surface and consolidate the land, breaking this up again with a short-toothed or seed harrow before sowing, which should be up and down, not across the ridges, or angle-wise. These operations can be varied by any skillful farmer, to suit the peculiar soil or extraordinary seasons. The object is to have clean, fine soil, as like as possible to what a garden soil should be.

The rotation we recommend is:

RICH SOIL. THE DELL HO ELLEN

straid gate 1. Grass. to post f odr of studying sid

The said 13. Flax. saw been add it and Te bins

4. Potatoes or Turnips.

5. Wheat.

6. Clover Hay.

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sandash add . Grass, amit outer wit the agriculture

2. Oats.

3. Potatoes or Turnips.

4. Wheat.
5. Flax (on half only.)*

6. Clover Hay.

POOR SOILS.

1. Grass. 2. Oats.

atsize the 3. Potatoes, of to beard a remitable at

4. Flax, (on half only.)*

tright and depth of careac. val. 6 clean skin.

white hair, small of JONIWOS car case in fatten-

The seed best adapted to the generality of soils is Riga, although Dutch has been used in many districts of country for a series of years with perfect success, and generally produces a finer fi bret but not so heavy a crop as Riga. In buying seed, select it plump, shining and heavy, and of the best brands, from a respectable dealer. Sift it clear of all the seeds of weeds, which will save a great deal of after trouble, when the crop is

^{*}Ount Flax in next rotation on this half,

growing. This may be done by farmers, and thro' a wire sieve, twelve bars to the inch. Homesaved seed has produced excellent crops; yet it will be best in most cases, to use the seed which is saved at home for feeding, or to sell it for feeding, or to sell for the oil mill. The proportion of seed may be stated at one Riga barrel, or threeand-a-half imperial bushes to the Irish or plantation acre; and so on, in proportion to the Scotch or Cunningham, and the English or statute acre, viz., about 21 bushels for the Scotch acre, and about 2 for the statute acre. It is better to sow rather too thick than too thin, as with thick sowing the stems grows tall and straight, with only one or two seed capsules at the top; and the fibre is found greatly superior in fineness and length, to that produced from thin-sown flax, which grows coarse and branches out, producing much seed, but a very inferior quality of fibre. The ground being pulverized and well cleaned, roll, harrow, and sow. If it has been laid off without ridges, it should be marked off in divisions, eight or ten feet broad, in order to give an equable supply of seed. After sowing-which should be done by a very skillful person, as the seed is exceedingly slippery, and apt to glide unevenly from the hand -cover with a seed harrow, going twice over it, once up and down, and once across or anglewise as this makes it more equally spread, and avoids, the small drills made by the teeth-of the harrow. Finish with the roller, which will leave the seed covered about an inch-the proper depth. The ridges should be raised a very little in the centre, when the ground is ready for the seed, otherwise the crop will not ripen evenly; and when land is properly drained, there, should be no ridges. Rolling the ground after sowing is very advisable care being taken not to roll when the ground is so wet that the earth adheres to the roller.

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Cultivation of Potatoes.

We clip the following items of interest from correspondence of the Boston Cultivator:

I avail myself of this season of the year to suggest the importance of planting potatoes in the following manner:—First, prepare the ground as usual! Then hole out whiterat hill 18 inches from centre to centre in each row; but make the bot tom of the hill loose and mellow. Then drop one quart at least of good horse manure on the potato, and cover it with good soil about 2½ inches deep above the manure. Plant the rows about 2 feet 9 inches from centre to centre, and select a good sized potato for each hill. Before covering, observe in all cases to let the manure lay at least from 48 to 60 hours on the potato, which has a very salutary effect on giving the potato an early

start. Then take great pains in covering, and if the crop fails it will not be because it has not been well planted. In hoeing, hoe lengthwise of the roots, so that the soil from the middle of the rows will be drawn up rather in the form of a slight ridge for the potatoes to branch in. One hundred bushels of horse manure used in this way will manure 3200 hills, and by a fair experiment in planting will not fall short, on good ground, of 300 bushels to the acre; and in common soil will reach 150 or more bushels. Strive by all means to obtain horse manure for the purpose of raising potatoes, especially on small lots, as every one can avail themselves of more or less of this kind of manure.

Grafting the Grape-vine.

I fear that your correspondent will be disappointed in regard to the benefit to be derived from a knowledge of my mode of grafting the grape-vine, although in some cases it may answer a good purpose. I have never succeeded in grafting the grape-vine by the usual method of grafting; that is, cutting the graft from one plant and setting it upon another, and would like to inquire if you, or any of your subscribers know of a grapevine grafted in the manner described. I should also like to know how the Yeddo vine was graftted upon the native by S. B. Parsons, of Flushing, L. I., mention of which was made in the Cultivator for the 19th of September, 1863. I have a Concord vine that grew from a graft set under ground in the stump of a white sweet-water, which as far as I can ascertain, has no connection with it, but is growing upon its own roots. My vine was grafted by setting a small Concord by the side of a Hamburg; then, about the middle of June taking off each a shoot of new growth. I cut upward half through the Concord designed for the graft, a similar cut downward in the Hamburg, locked them together, and bound with matting. At the end of July the Concord may be cut just below the insertion, the Hamburg above.

Pears—Best 14 Varieties.—At the late meeting of the Fruit Growers Society of Western N. York, the subject of Pears was fully discussed, and the following named fourteen varieties received the highest number of votes:

They are given as nearly as possible in the order of ripening, and the number of votes each received, is appended—

Doyenne d'Ete, 17; Beurre Giffard, 14; Duchesse d'Angouleme, 18; Rostiezer, 12; Bartlett, 21; Belle Lucrative, 16; Flemish Beauty, 12;—Louise Bonne de Jersey, 17; Seckel, 16; Buerre Bosc, 11; Sheldon, 17; Buerre Anjou, 14; Lawrence, 17; Winter Nelis, 12.

HOUSEHOLD WORDS.

THE PLANTING OF THE APPLE TREE.

BY WM. CULLEN BRYANT.

Come, let us plant the apple-tree!
Cleave the tough greensward with the spade;
Wide let its hollow bed be made;
There gently lay the roots, and there
Bift the dark mould with kindly care,
And press it o'er them tenderly,
As round the sleeping infants feet,
We softly fold the eradle sheet:
Bo plant we the apple-tree.

What plant we in the apple-tree?

Buds, which the breath of summer days
Shall lengthen into leafy sprays;
Boughs, where the thrush with crimson breast
Shall haunt and sing and hide her nest.

We plant upon the sunny lea

A shadow for the noontide hour,

A shelter from the summer shower,

When we plant the apple-tree.

What plant we in the apple-tree?
Sweets for a hundred flowery springs,
To load the May-wind's restless wings,
When, from the crchard-row he pours,
Its fragrance through our open doors;
A world of blossoms for the bee;
Flowers for the sick girl's silent room;
For the glad iniant sprigs of bloom,
We plant with the apple tree.

What plant we in the apple-tree?
Fruits that shall swell in sunny June,
And redden in the August noon,
And drop, as gentle airs come by
That fan the blue September sky;
While children, wild with noisy gle
Shall seen their fragrance as they use

While children, wild with noisy glee, Shall scent their fragrance as they pass, And search for them the tufted grass At the foot of the apple-tree.

And when above this apple-tree

The winter stars are quivering bright,
And winds go howling through the night,
Girls whose young eyes overflow with mirth,
Shall peel its fruit by cottage-hearth,
And guests in prouder homes shall see,

Heaped with the orange and the grape,
As fair as they in tint and shape,
The fruit of the apple-tree.

The fruitage of this apple-tree
Winds and our flag of stripe and star
Shall bear to coasts that lie afar,
Where men shall wonder at the view,
And ask in what fair groves they grew;
And they who roam beyond the sea
Shall look and think of childhood's day,
And long hours passed in summer play
In the shade of the apple-tree.

Each year shall give this apple-tree
A broader flush of roseate bloom,
A deeper maze of verdurous gloom,
And loosen when the frost-clouds lower,
The crisp brown leaves in thicker shower;
The years shall come and pass, but we
Shall hear no longer, where we lie,
The summer's songs, the autumn's sigh,
In the boughs of the apple-tree,

And time shall waste this apple free.

Oh, when its aged branches throw

Thin shadows on the sward below
Shall fraud and force and from will
Oppress the weak and helpless still?
What shall the task of mercy be,
Amid the toils, the strifes, the tears
Of those who live when length of years
Is wasting this apple-tree?

"Who planted this old apple-tree?"
The children of that distant day
Thus to some aged man shall say;
And, gazing on its mossy atem,
The gray-haired man shall answer them;
"A poet of the land was he,
Born in the rude, but good old times;
"Tis said he made some quaint old rhymes
On planting the apple tree."

-Atlantic Monthly.

THE KISS IN SCHOOL.

The following incident in a district school, described by William Pitt Palmer, of New York, in an address before "The Literary Society," in Stockbridge, Massachusetts, his native home, will take many, whose heads are now streaked with silver hairs, a journey back to boyhood and early life.

A District School not far away,

"Mid Berkshire hills, one winter's day,
Was humming with its wonted noise
Of three-score mingled girls and boys—
Some iew upon their tasks intent,
But more on future mischief bent:
The while the insister's downward look
Was fastened on a copy-book—
Rose sharp and clear a rousing saxok:
As 'twere a battery of bilss
Let off in one tremendous kiss;
"What's that?" the startled master crica,
"That thir," a little imp replica,
"That thir," a little imp replica,
"Wath William Willishiff you pleathe—
I thaw him kith Thuthannah Peathe!"
With frown to make a s'atne thrill,
The master thundered, "Hither, Will!"
Like wretch o'ertaken in his track,
Will hung his head for fear and shame,
And to that awfal presence came—
A great, green, bashful simpleton,
The butt of all good natured fun—
With smile suppressed, and birch upraised,
The threa'ner railered—"I'm annixed
That yon, my biggest pupil, should
Be guilty of an act so rude!
Before the whole act school to boot—
What evil genins put you so!?"
"Twas she, herself, sir," subbed the lad,
"I didn't mean to be so bad—
But when Susannah shook her curls,
And daran't kiss a baby's doll.
I could'nt stand it, sir. all!
But up and kissed her on the spot,
I know-boo-hoo—I ength to not,
But, somehow, from her looks—boo-hoo—
I thought she kind o' wished met too!"

Our Feet.

Woman are not more hardy than men. They walk on the same damp cold earth. Their shoes must be as thick and warm. Calf or kip skin is best for the cold season. The sole should be half an ich thick; in addition there should be a quarter of an inch of rubber. The rubber sole I have used for years; I would not part with it for a thousand dollars. It keeps out the damp, prevents slipping, and wears five times as long as leather of the same cost. For women's boots it is invaluable. But rubber shoes should be dis-

carded. They retain the perspiration, make the feet tender, and give susceptibility to cold. Stand on one foot, and mark around the outspread toes. Have your soles exactly the same width. Your corns will leave you. The narrow sole is the cause of most of our corns. A careful study o the anatomy of the foot and the influence of a narrow sole will satisfy every inquirer. The heel should be broad and long. Wear thick woolen stockings. Change them every day. Before retiring dip the feet in cold water. Rub them hard. Hold the bottoms to the fire till they burn.—[Dr. Lewis.

DON'T BOCK THAT BABY!

Hall's Journal of Health, warns mothers against the use of cradles, jumpers and swings for babies, and also against the tossings up and down, and rolling over and over of tender babes so frequently practiced by mothers. That journal says that the downright murder of tens of thousands of infants and the weakening of the brain of many who do not die, are the direct results of rocking cradles and swinging cribs. But, sometimes, the babe can be got to sleep in no other way. That is because he is not sleepy, or because he is sick, or hungiv, or has eaten too much; and in either of such cases, he should not sleep-nature will not allow him to sleep if her laws are not interfered with and neutralized by ignorant nurses and injudicious parents.

Nurse or mother, do you know why rocking, tossing or swinging produce drowsiness, stupor and sleep? know you the effect of your work? It is because the rapid motion disturbs the even and healthy circulation of the blood, producing exactly the dizzy, weak and drowsy stupor in the infant that violent swinging, or lying in a ship's berth during a storm, produces in an adult. Can any one suppose this is a healthy process? If any mother doubts our statement, let her go into a crib, and be rocked for ten minutes. What she will experience in head and stomach will be just what her tender babe feels in ten-fold force.

We insist that this rocking of children is a useless habit. If not accustomed to rocking, they will go to sleep quite as well when lying quietly, as when shaken in a cradle. If they do not, there is trouble from sickness, or hunger, or more likely from an overloaded stomach; and though the rocking may produce a temporary stupor, the trouble is made worse thereafter by the unnatural means taken to produce quiet for the time being.

[The above sensible advice we of the Michigan Farmer fully endorse. More children have been sent to premature graves, in our opinion, by everlasting jolting, tumbling and rocking, than by all

the diseases known to Hygiene. If death does not occur, this folly leaves its victim with dizzyheadiness, sick headache, dropsy on the brain, or something almost as troublesome through life .-Its effects are in contradiction to the principles laid down by the great Creator of Life, and therefore at variance with sound mental or physical health. We honestly believe that if nature had intended that a child should be rocked it would be born with rockers attached to the convenient posterior part of its body, in order that it might be set down anywhere and rocked on natural principles without the aid of mother or nurse .-The writer of this was never rocked, and has not been troubled with the headache thro' life, and believes that it is owing to not having been rocked while an infant. Aside from its being unhealthy, rocking is a source of annoyance if the habit is once acquired by a child—it produces the same effects of alcohol upon the brain, drowsiness, stupor and sleep, and is as pleasant to it as the glass of whiskey is to the toper—he must have it or the whole house is in an uproar. Shake an egg continually and you deprive it of the vitality of life-so it is with a young child whose tender brain is shaken from one side to the other. If an infant wants to sleep, nurse it, wrap it comfortable in flannels, (in cool weather) keep it warm, lay it upon a soft bed, and if in a healthy condition it will sleep as God intended it should, like an angel of innocence and beauty-but don't rock the baby .- W. S. B.]

TWO MEALS A DAY.

It will be an impossibility to stop the sun from "shining o'er earth," and perhaps almost as much so to make the civilized world, (now so fond of "oysters and fixins" at any time,) believe that "two meals a day is enough," yet, still in this age of high prices for the necessaries of life it will be well to have all the light on the subject of cheap and healthy living that is shining abroad. Every gourmand will pshaw at the following points presented by Dr. Jackson in the "Laws of Life," although they appear plausible, and are no doubt practical rfter you get used to them. Habit however, is hard to change whether it benefits the stomach or purse:—

1st. That by the eating of only two meals a day, the stomach gets ample opportunity to rest and so recovers tone.

2d. That the organs of assimilation, or what may be called the blood-making organs, have so much time to secrete the food that they can do it slowly and there'ore perfectly.

3d. That the proper time for doing it is accorded to them, which is during the night. A man who eats his last meal at three o'clock in the af-

ternoon has the first digestive processes complete by 9 o'clock, and then the assimilative or bloodmaking organs commence their work. If he goes to bed and to sleep, the organs of accretion, by which new supplies are furnished to the system; carry on their labor in his unconscious state so silently and yet so perfectly and successfully that what he needs in the way of nutrition is furnished

4th. That under such a condition of things the stomach goes to sleep when the brain goes to sleep, and the person thus rests throughout the entire organism. I do not believe there is one man in ten thousand who would not break up entirely his dreams, if he were to adopt the two meals a day system and eat proper food. His sleep would be a state of pure unconsciousness, and when awakened from it at the proper time, he would be so essentially refreshed as to feel that all the changes which Nature needed to carry on in his system had been wrought out for him, meanwhile he knew nothing about it.

Many of the diseases which afflict those who eat three meals a day and which arise from overeating from indigestion and from imperfect assimilation of food would vanish, and the person now suffering from them would know them no more.

5th. A greatly superior condition of the nervous system would ensue; and every man and woman who lived mainly by thinking would receive such an increase of brain power as to be joyfully surprised at it.

6th. Greatly superior opportunities for accomplishing intellectual labors would follow, by reason of the fact, that whereas now under the threemeal system a man can only go to his office or his study and get his brain fairly aglow, his mind taking entire possession of it, and getting ready to develop thought in the highest order before the dinner bell comes and the charm is broken up; he would under the two-meal-a-day system he able to begin his work in the morning and increase his appliance thereto till at last complete absorption of his conscious nature would be had, and from that time onward for four or five or six hours he would be able to think continuously; and there is no thinker who does not understand how necessary continuity is to profoundness of · lat. That by the country of anit and and

Too Early Changes of Clothing.

Don't be in haste to put off woolen garments in the spring. Many a "bad cold," rheumatism, lumbago, and other aches and pains, are lurking in the first sunshiny days, ready to pounce upon the incautious victims who have laid aside their defensive armor of flannel. All sudden changes in the system are attended with more or less of

danger, but the body can accommodate itself to almost any condition, provided it be assumed gradually. The use of flannel guards against sudden change of temperature. In a warm day, when perspiration flows freely, if it be allowed to pass off rapidly, the quick evaporation carries with it much heat from the body, and a chill may be produced, followed by derangement of some function, as "cold in the head," or unnatural discharge from the bowels. Flannel contains much air in its meshes, and is therefore a poor conductor of cold or heat. Evaporation proceeds from it more slowly than from cotton or linen, hence its excellence as a fabric for clothing. Many persons wear it next to the skin the year round, and find it a shield against prevalent complaints in summer. No general rule can be given as to this, it must depend upon the constitution and employment of the individual. In all cases, however, flannel should not be laid aside until the weather is settled permanently warm-in this latitude usually after the 1st of June. The change should be made in the morning, never in the after part of the day, when the energies are partly abated, and the air is usually growing cooler. Many a consumption has been contracted, by undressing for an evening party. an and makes and no vergonal

Correct Speakers.

We advise all young people to acquire, in early life, the habit of correct speaking and writing, and to abandon, as early as possible, any use of slang words and phrases. The longer you live, the more difficult the acquisition of correct language will be; and if the golden age of youth, the proper season for the acquisition of lauguage, be passed in its abuse, the unfortunate victim of neglected education is, very properly, doomed to talk slang for life. Money is not necessary to procuce his education. Every man has it in his power.-He has merely to use the language which he reads, instead of the slang which he hears; to form his taste from the best speakers and poets in the country; to treasure up choice phrases in his memory, and habituate himself to their use, avoiding, at the same time, that pedantic precision and bombast which show the weakness of vain ambition rather than the polish of an educated mind.

Remedy for the Borer.—A correspondent of the California Farmer says the following is a sure protection against borers in fruit trees: Take straw of any kind, twist a small rope of it, commence at the surface of the soil and wind round the tree, fitting it closely, but not very tight, from the soil to the first limbs of the tree, and fasten it, but be careful not to tie so as to obstruct the growth of the tree, and let it remain the year round.

FLORICULTURE.

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Flower Garden. I vala

Previous to providing annual flower seeds, the cultivator should lay out a plan of the garden, and in making allotments of ground for any particular purpose, provision should be made for a select assortment of such bulbous, tuberous, and perennial plants as may be deemed most worthy of attention, not forgetting to leave room for some of the choicest varieties of the Dablia.

Another consideration is, to have suitable implements ready so that the work can be performed in a skillful manner, and at the proper season. A spade, rake, hoe, trowel, drilling-machine and pruning knife, may be deemed essentials; and in order to have the beds laid out with the edges straight and even, a garden line should be in readiness. If labels be required, they may be made of shingles, which being split into strips of about an inch wide, and sharpened at one end, will serve for marking distinct kinds, either in pots, or on the borders. In order to have the names or numbers written in legible characters, the lables should be painted on the smooth side with white lead, and then marked with black lead pencil before the paint gets dry; inscriptions made in this way will be as durable as the lable itself.

The next, and perhaps the most important consideration is, to have the ground in good condition to receive the seed. In order to attain this desirable object, let some good rich compost, or very old manure be provided, and well mixed with the soil; dig it a full spit deep, pulverizing every particle. If the ground could be dug to a great depth at the clearing up of winter, and then again at the period of sowing the seed, it will be an advantage,

All kinds of annual flower seeds may be sown in the month of April and May, on borders or beds of clean light earth; the beds should be levelled, and the seeds sown either in small patches, each kind by itself, or in drills from a quarter to half an inch deep, according to the size or nature of the seed. Lupins, Peas, &c , should be planted nearly an inch deep. Those who would have their plants to flower early, should sow the hardy kinds the last week in March, or early in April, the most tender may be sown in boxes or pots of light earth at the same time. These, if exposed to the sun every day, and sheltered in cold nights, will be forwarded in growth, and be fit to transplant early in June. As these plants do not well bear transplanting, they should be turned out of the pots with the balls of earth entire, and placed in the ground where they are intended to flower; or if the seed be sown in a bed with other kinds, they should be carefully transplanted with a trowel; without disturbing their roots. The most eligible way to obtain early flowers, is to prepare a slight hot-bed for the tender kinds, and either to plunge therein up to their brims, or to sow the seed in the earth in shallow drills, not more than a quarter of an inch deep. It may be necessary here to observe, that in favorable seasons, flower seed in general will come up in from one to three weeks after it is sown, except the seed of Cypress vine, which should be first partially scalded in warm water, and then sown. If some of the hardy annuals be sown in September, they will grow large enough to survive the winter by a slight covering of straw or litter; and if plants thus raised, be transplanted early in the spring, they will produce very early flowers.

About Roses.

A correspondent of the Culturist writes to that journal concerning the care and treatment of roses. As the season of this beautiful nymph of Flora is rapidly approaching, our readers will doubtless find much advantage from perusing the letter which we here append:—

"Everybody loves the rose, and almost every one desires to possess information that will tend to give the greatest possible effect to this pet of the garden and conservatory. It is not as well known, perhaps, as it might be, that to have roses in full perfection of size and color, proper planting and exposure are absolute essentials. The rose requires abundance of air and light, and to look their very best I think that judicious grouping is indispensable. I know no way of accomplishing this more effectually than by pyramidal grouping, that is forming a rose pyramid, rising gradually in heightn from the minutest dwarf at the base, to the tallest standard at the apex. As the varieties are almost endless, it would be impossible to enumerate them. Almost every florist's catalogue will supply the list, and the taste of the taste of the operator direct the arrangement. A proper discrimination should of course be manifested in regard to the time and continuance of blooming, so as to secure the finest possible effect. I once read of a very simple method of imparting a stronger and more agreeable odor to the rose. It is done by planting one or two large onions close to the root. It is said that water distilled from roses grown under such circumstances is decidedly superior to that prepared from ordinary rose-leaves. It is a French idea, and as it will cost little to try it, perhaps some persons may feel disposed to experiment on it."

Plants for Room Culture.

The editor of the Hortlculturist, writing of plants for culture in rooms, says " no plant that is grown in a room can receive too much light." Hence windows facing the south are the best, because the sun reaches them for the longest time. during the day. Some plants are only adapted to greenhouse culture, and cannot be made to thrive well in rooms, amongst such is the Camellia, a great favorite, from its clean glossy foliage and its magnificent flowers. It cannot be made to bloom in perfection in any room unless that room has the conditions of a greenhouse. The Calcidiums, Marantas, Begonias, will not thrive under room culture, unless they are placed in Wardian cases, because they need a humid atmosphere. Caeti, and the mammillian do well, because they thrive where the air is warm and dry. The Horticulturist, however, among that class of plants which needs neither a very dry nor a very moist condition of the air, and which are adapted to room culture and repay the care laid out on them, by the beauty of their foliage, and their profuseness of bloom, names the Azalea as first. Among the roses adapted to room culture, are the Goubalt, Bougere, Leveson Gower of the Tea Roses. Of the Bourbon and China Roses, Hermosa, Malmaison, Queen, Phonix, Daily, and Agrippina are considered the best. The Hybrid Perpetuals are not adapted to room culture. Of the Cactius tribe, all are adapted to room culture, and among these are the Night Blooming Cereus. The Calla, Hyacinth, Narcissus, Crocus, Tulip, Ixia, Babiana, Oxales, Lachenalia, and one of the best of bulbous rooted class the Cyclamen, all do well in rooms. . The Laurustinus, the Pitt sporum, and the Cornilla, are also fitted for room culture- The Heliotrope, and the Verbenas do well in rooms, and so do the Cuphea and Bouvardia. One of the plants that repays room culture in winter especially is the Chinese Primrose, bright, blooming and brilliant all the time. The Pelargoniums are not adapted to rooms. They do not seem ever to be the same plants when taken out of the greenhouse and beyond the care of the skillful and painstaking florist.

Among the climbing plants, the Passion Flower is one of the most beautiful, and is, when in flower, most ornamental. The Wax-plant is also a handsome plant, that is easily cared for, but is more odorous than sweet-scented.

The Spires pramfolia, the Deautzia gracilis, the Dwarf Almond, and the Dielytra are hardy plants, that do well in doors, and may be set out when growing too large for the house, but which by their blooms repay the care bestowed upon them for room culture.

Asters

When the Aster was first introduced from China it was only a single flower, having a large yellow disc and white ar red rays. The Germans were the first to make improvements and their earliest productions were flowers having striped rays, mostly blue, edged with white; which were called Garman Asters to distinguish them from the old China Aster.

Very soon the French took up the work of improvement and the result was what was known as the Quilled Asters. These were very great favorites, but they were destined to be superseded by a yet higher advancement, and the past twelve years wrought an almost entire change in the character of this flower. It would seem hardly possible that anything now remained to be achieved, for we have them as large, as double and as perfect in form as the finest Dahlia. Truffant has made his name a household word with every lover of autumn flowers by the perfect Peony Flowered Asters to which it has been linked. These bear very large flowers, of many colors with long reflexed petals, and grow to the height of two feet. The Inbrique Pompone is one of the newer sorts, having the petals beautifully imbricated or overlapping each other, and sufficiently recurved to give the flower a fine globular form. It grows about eighteen inches high. The Cocardeau or New Crown is very double, having the central petals pure white surrounded by broader petals of some other color, crimson or violet or red, &c. The New Chrysanthemum-flowered dwarf grows only about a foot high, with very large perfect flowers of nearly every color. The New Giant Emperor well deserves its name. Its flowers are enormous, nearly all perfectly double and of all colors

All these varieties of the Aster delight in a deep rich soli and can be grown very easily. The seed may be sown in a hot bed or in the open ground, and when the plants have attained the size of a young cabbage plant they can be transplanted as easily. The large growing sorts should be set about ten inches apart each way and the dwarf kinds six. It will be wall, particularly in exposed situations to support the tall growing kinds by tying them to small stakes thrust into the ground near each plant. If these stakes are a few inches shorter than the plant they will not be conspicuous.

A bed of Asters in full bloom is a most lovely and attractive sight, amply repaying all the cost and care bestowed upon its A low cents will purchase the seed and a very little labor in sowing, panting and weeding will furnish such a display in the autumn that no one who has once enjoyed it will ever be willing to forget the pleasure .- (anada Farmer.

Striking Cuttings.

An "Enthusiast" writing from Adrian to the Gardener's Monthly says:

Let me tell your readers my plan for striking cuttingswhethe used by others or not, I do not know. It is certainly vastly superior to any other method I have tried. It is simply to plunge the slips in sawdust; cut off fresh young shoots, cut smooth with a sharp knife below a joint; insert one or two joints in the sawdust; wet thoroughly and keep wet; cover with a pane of glass and you will hardly lose a cutting. Half rotted sawdust is better than the fresh-and that from a planing mill is better than the finest dust from a common saw. Fuschias, Calceolarias, Begonias, Passifloras, Abutilons, Cisus, and, in fact, nearly all green-house and hot-house plants root thus with the greatest readiness. Roses, with me, always do best in a common hot-bed with light waterings. Pelargoniums should be in a separate pan, so as to receive less water than the most of outlings need. I would recommend the sawdust to the ladies especially; for its will allow you to pull up the silp, as ladies like to do, to see if it be really rooting. However, this curiosity may be pushed to an excess. Sawdust is so light and loose that the roots run with the greatest case and spangle out beautifully. Another advantage is that in removing the rooted cuttings you do not need to break any of the finer-rootlets. These each hold on to its bit of wood, and if you pry out instead of pulling the plant, you have every fibe sound. Sawdust is also a neater medium than sand or mud. It is light and easily moved. It will not injure a fine fruit of sauce dish, or an open jar. It will well repay the amateurs to try a few cuttings from mere curiosity.

Now a word for the Fuschias. If any one wishes a select list, let him try the following: ums should be in a separate pan, so as to receive less water

list, let him try the following:

list, let him try the following:

Lord Eleho, very large, purple; Mad. Cornellson. double
white; White Lady, exquisite; Governor General, very fine
habit; Bose of Castile, old, but good; Count Cavour, manve
culored; Sir Robert Peel, amaranth, colored; Dr. Livingstone,
blush, rose; Sir Colin Campbell, double purple; Annie, rose
colored, beautiful; Meteor, fine bronze foliage; Prince of Orange, very rich dark.

eve dozen are of good habit, distinct and charming.

It will be all that the amateur needs at present. It includes the best, old and new. Schiller is a fine flower, but the habit is wretched. Others are not distinct enough. I believe it was from your magazine that I first learned the folly of pruning Fusehias. Give them enough light and little

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plenty of moisture and no saucers full-good drainege rood soil, and let them grow almost as they will. A Fusand good soil, and let them grow aimost as usey with a claim let alone will naturally assume a lovely form, it it have the above requirements. In cutting back old plants cut down means to the above the world to the soil. If they will not start from the base, they

the above requirements. In cutting back ond plants cut thowat hearly to the soil. If they will not start from the base, they are not worth keeping.

If any of your flower garden lovers wish to enjoy themselves, let them, the coming season, plant an oriental bed—say 10 feet in diameter. Plant Cannas, Richus Sanguineus, Caladiana Assantium, Voccas, Acanthus. num Esculentum, Gyderium Argentium, Yuccas, Acanthus, Gladiolus, a few White Lillies. In the shade under the others Gazania and Farfugium. Border with Sedum,

POULTRY HINTS FOR MAY.

As this is is the month which strictly belongs to the arranging of poultry houses, hatching, &c., we devote considerable space to the best mode of raising and taking care of poultry.

If April was a busy month with the laying hens, May will find many of the early layers (the Brahmas) engaged in the pleasing task of incubation, or engaged with their younglings; and now our care of them demands particular attention,

As soon as the hens come off with their broods, they should be confined, for a day or two, in a moderately warm room, The chicks should at first be fed with crambs of bread mois. tened with milk or hard boiled eggs chopped fine. After the little chicks have gained some strength, the mother hen and her little family may be cooped and placed, if the weather be isir, in a dry, sunny situation. The coop should be large and airy; and here a very great error prevails with many in confining the hen and chickens in much too cramped and harrow quarters, to the no small inconvenience of the mother, say nothing about the great danger of the chicks being killed by the tread of the hen. In nine cases out of ten the coops are entirely too contracted, low and uncomfortable for the mother and her young. Just draw a comparison between a hen and brood confined in a small, low, contracted room, hardly sufficient for her to turn about, much less to carefully brood her young, with a large, airy spartment, well protected from heat. wet or cold, and sufficient space for exercise.

In order to keep the chickens in good health, so confined, it is essential that the greatest precautions should be taken to ensure cleanliness in all departments; therefore the coops should be cleaned out daily, and the floor covered with sand or fine gravel, to prevent any portion of filth adhering to the floor. Fresh water, in clean vessels should be placed before them morning and afternoon. Impure, fithy water may be set down as a main cause of all the diseases poultry are subject to-diarrhea, gapes, and other maladies.

But do not let our good natured readers be frightened by the minuteness of these directions, for at a later season the chickens may be left much more to themselves, only let them remember that if in possession of good fowls, and they desire to have healthy chickens at an early period of the year, their chance of success will be infinitely increased by following our

Uhickens hatched the latter part of May and June may be confined in the coops only about two weeks, after which they may be allowed their liberty, and they will thrive far better than when confined either in courts or coops.

FEEDING.

Here lies the great error. Suppose a dozen or so of persons were to be fed by placing before them half a dozen legs of mutton and as many loaves of bread, from which they were expected to eat as often as they get hungry, they would shortly tire of the over-familiar viands, loose appetite, and become what breeders of poultry know so well as "out of condition." All poultry feeding which consists of throwing down food which the chickens can make a hearty meal and leave a quantity to return to and eat hours afterwards, is bad; and if an endeavor be made to restore lost condition by administering tit-bits,-meal, barley, cracked corn and the like, it will be about as little advantageous as it would be for the before n-amed provider of stale mutton and bread to try and resto :

the eaters' appetite with meals of turtle-soup, fam, honey and cream. For fowls to do well, they should be fed when they are hungry, and hungry when they are fed. It is not easy to name the quantity which chickens will eat, or the number of meals a day that they will require, as these continually vary according to their age, and the opportunity they have for catering for themselves. We have found old fowls thrive well on three meals a day, while chickens, until they reach cocks, and hens' estates, want ten, seven or five, according to their age. Young chickens require a little very often. When they fail to be hungry for every meal, reduce the number of meals. When they are not found to be hungry for seven meals a day, reduce the number to five, and so on; and most likely the chickens will go to work upon their food as healthy chickens should. The food also should be varied-a poultry "bill of fare "may be made very lengthy. For standard dishes we have corn, barley, buckwheat, oats and boiled potatoes; then there are millet, sunflower seeds, crushed oats boiled, to vary the diet, especially for the young; and for casual change we have boiled carrots, wheat-screenings, fresh meat, and any item that presents itself.

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Perhaps we cannot better illustrate what we have said above than by giving particulars of the way in which a stock of chickens are managed. As soon after six o'clock in the morning as is compatable with the habits of the family in which very early rising is not essential, the chickens should have a meal of cracked corn. Indian meal not with water, generally used, should not be given to very young chickens. In all subsequent meals quite enough should be given to satisfy hunger, but there should be no overplus. We fancy we hear some reader exclaim, "Oh! must we stay and see the chickens eat their food to know that they are satisfied?" To which we unhesitatingly answer, Yes! But this need necessarily entail no loss of time, as if there are three or more lots all may be fed simultaneously; and if there is only one, a feeder who wants to make much of time can leave and return. At nine A. M. the half-fledged chickens may have a meal of barley, boiled potatoes mashed with shorts or corn meal; at twelve the chickens may have as much barley as they like to eat, and some lettuces or cabbage leaves, or any greens which may be comatable. At three P. M. a good meal of cracked corn; at five they may all be fed on boiled potatoes mixed with Indian meal and fed warm. Following the rule to feed when fowls are hungry, and not to feed until they are hungry, makes frequent change necessary in the number of the meals, and consequently in the hours at which they are given; and with regard to the kind of food, the more varied the feeding can be in that respect the better, provided all pampering be carefully avoided. The more the food is scattered the better. Throw it well abroad, and when the fowls or chickens are no longer anxious to run for it, hunger is appeased.

CARE OF CHICKENS.

As to the casualties arising from the neglect or fil-treatment of servants, every farmer who has live stock to be tended has had ample proofs. There is a peculiar idiosynerasy in some individuals which fits them to take charge of certain animals. Some females have quite a passion for bringing up poultry, and by their care and kindness will rescue apparently moribund chickens from the jaws of death A clever old woman, or a little girl ten or twelve years old, makes an excellent poultry tender; boys are generally as mischlevous and untrastworthy as monkeys. When there is anything in hand requiring peculiar watchfulness, it is not a bad plan, if possible, to attend to it one's self.

CARE OF DUCKS.

The ducks now require attention. Ducks generally commence laying the latter part of March and continue to lay until May, if the sitting did not intervene and interrupt the bird. They are not generally inclined to sit; but to induce them to do so, toward the end of laying take away their eggs, being careful every morning to take away the oldest in order that they may not spoil. From nine to thirteen eggs are allowed her, according as she is able to cover them.

The only time the duck requires some care is while she sits.

As she has but little time to spare to procure her meals, food and water should be placed near her; and she is content with it, let the quality be what it may. It has even been remarked that when she was too well fed she did not sit well; for that reason she should be portloned.

Incubation, like the goose, lasts thirty days; and the first broods are generally the best, because the warmth of summer helps to bring them about. The cold always prevents the late broods from getting strong and giving as large ducks.

Every duck of the same species is far from giving proofs of much foresight, for the preservation of the warmth of her eggs. It often happens that they let them cool. Besides, hardly are the ducklings born when the mother takes them to the water, where they dabble and eat at first, and many of them perish if the weather is cold.

For the foregoing reasons it is well to sit hens on duck' eggs. Being more assidnous than ducks, these foster-mothers have more affection for their young, will watch and guard them with more attention, and as they are unable to accompany them on the water, for which ducks show the greatest propensity as soon as they are excluded, they follow the mother hen on dry land, and become a little hardy before they are allowed to take the water without any guide.

On hatching there is no necessity of taking away any of the brood, unless some accident should happen; and having hatch. ed, let the duck retain her young upon the nest her own time. On her moving with the brood, prepare a coop and pen upon the short grass, if the weather be fine, or under shelter if otherwise; a wide shallow dish of water, often to be renewed, near by them. Their first food should be crumbs of bread moistened with milk; curds, or eggs boiled hard and chopped fine, is also much relished by and is good for them. After a few days corn meal boiled, and rolled between the hands, and if boiled potataes and a few chives or lettuce chopped fine, be added, all the better. As soon as they have gained a little strength, a good deal of put herbs may be given them raw, chopped and mixed with a little bran soaked in water, barley and potatoes beat up together. They are extremely fond of angle-worms and bugs of all kinds, and for which reason they may be useful to have a run in the garden daily, All these equally agree with young ducks, which devour the different substances they meet with, and show, from their most tender age, a voracity which they always retain.

The period of their confinement to the pen depends on the weather and strength of the ducklings. Two weeks seem the longest time necessary; and they may sometimes be permitted to enjoy the pond at the end of the week, but not for too great a length of time at once, least of all in cold weather, which will affect and cause them to scour and appear rough and draggled. Care must be taken that the water where they are at liberly to go, contains no leeches, which occasions the loss of the ducklings by sticking to their feet,

Look out for mud-turiles and bull-frogs in the water; eats and rats on land—all enemies of young ducks. When young, ducks are exposed to many dangers and mishaps. Their wad-ling gait quite unfits them for running from a foe on land, and they are but too apt to be troiden on by horses, cattle, and even by the foot of man.—U. N. BEMENT, in Genesee Farmer.

The Art of Raising, Turkeys.

A correspondent of the Boston Cultivator says:

As the season of the year admits of some suggestions with respect to raising turkeys for the market, I offer the following:

First, place barrels horizontally, for the turkeys to lay in, and train them to their nests by feeding them there. Take care of the eggs until setting time; then set each turkey on from 17 to 21 eggs. Second, keep them quiet, and as gentle as possible. Never allow any one to frighten them, or other fowls about the premises. The turkeys will hatch every egg that they are set on, if well managed and set in tight barrels or nearly tight—such as lime casks, flour barrels, &c. The barrel serves as a good house and covering, not only in laying time, but especially during the time of sitting. Always set

the front, or mouth of the barrel to the sun. This will make the turkeys and the inside comparatively warm in the open yard, or garden. It the turkey leaves her nest before the last chicks are out, place the unhatched eggs immediately in front of the house in the sun, or if at an unfavorable time enclose them in flannel cloth and place them near the fire or in a hothouse, and thus finish the hatching, and return the young to the mother. Twenty-nine days, 12 hours, 48 minutes, and about 52 seconds is the turkey's natural time to sit. When the hatching is over, the turkeys should have daily attention, and be kept as dry as possible until well grown

In conclusion, every farmer can raise from 100 to 300 turkeys a year without any detriment to his crops, as they devour many insects of various kinds, but especially grasshoppers,

THE GOLDEN POLAND.

As this breed is considered by poultry breeders to be one of the most beautiful, as well as one of the most productive of all the breeds known to us at this time, I think that a description of them might be interesting to the readers of the Michigan Farmer:

In size, they are a trifle smaller than their rivals, the Black Spanish. The ground work in their plumage is a bright yellow in the hens and a bright orange in the cocks. The end and also the edge of each feather should be tipped with black. The quill feathers in the cocks should be entirely black. The top knot should be of the same color as the body, large and heavy, dropping over each eye. The comb consists of two fleshy horns. The wattles should be large and of good color-legs a slaty blue, well formed, and of a medium size. Body well made and finely proportioned. Flesh tender and white. They are very good layers, but never or seldom seemed disposed to sit. Their eggs should be set under other fowls kept for that purpose. Disposition quiet and domestic.

The chickens are quite tender until half grown. They make good capons, and are easily fattened. Farmers breeding them in the country, often clip the top-knots to allow them to see hawks. It spoils their appearance, but they are as good for breeding. Hoping this description may be useful to farmers and others throughout the State I submit it for their consideration.

A PRACTICAL POULTRY BREEDER. Detroit, May, 1864.

GROWING CUCUMBERS Take a large barrel or. hogshead, saw it in two in the middle, and bury each half in the ground even with the top. Then take a small keg and bore a hole in the bottom; place the keg in the cent: e of the barrel, the top even with the ground, and fill in the barrel round the keg with rich earth, suitable for the growth of cucumbers. Plant your seed midway between the edges of the barrel and the keg, and make a a kind of arbor a foot or two high for the vines to run on. When the ground becomes dry, pour

water into the keg in the evening-it will pass out of the bottom of the keg into the barrel and rise up to the roots of the vines, and keep them moist and green. Cucumbers cultivated in this way will grow to a great size, as they are made independent of both drouth and wet weather .-In wet weather the barrel can be covered, and in dry the ground can be kept moist by pouring water in the keg.

The value of Dead Horses.

Some people will no doubt be astonished to learn that large fortunes have been made every year since the commencement of the war, out of the dead horses of the Army of the Potomac. The popular idea is that when Rosinante yields up the ghost, she is buried in some field, or left to molder into mother earth in the woods somewhere. Not so. She has made her last charge and gnawed her last fence-rail, but there is from \$20 to \$40 in the old animal yet. A contract for the purchase of the dead horses in the Army of the Potomac for the ensuing year, was let a few days ago, to the highest bidder, at \$1,75 per head, delivered at the factory of the contractor. East year \$60,000 were cleared on the contract, and this year it is thought \$100,000 can be made on it. The animals die at the rate of about fifty per day, at the lowest calculation.

At the contractor's establishment they are tho roughly dissected. First, the shoes are pulled off; they are usually worth fifty cents a set. Then the hoofs are cut off; they bring about two dollars a set. Then comes the candal appendage, Then the hide-I don't worth half a dollar. know what that sells for. Then the tallow, if it be possible to extract tallow from the army horses, which I think extremely doubtful, unless they die immediately after entering the service. And last, but not least, the shinbones are valuable, being convertible into a variety of articles that many believe to be composed of pure ivory, such as cane heads, knife-handles, &c.

Cure for Nails growing into the Flesh.

Dr. Gaillet, of Luynes, France, has published an account of the efficacy of the sesquichloride of Iron for curing the growth of the toe nails into the flesh, and Dr. Billon, commencing on this subject, says:—"In 1888, Dr. Wahu, staff physician to the army, having succeeded with this remedy in curing the painful disease in question, I resorted to the same method, and with the greatest benefit in four cases. I may here remark that ulcers about the nails are occasionally observed among our soldiers, having escaped the attention of the medical boards, or being caused by the pressure of the boot during forced marchea. Under these circumstances, a prompt and painless cure may be effected by inserting the dry sesquichloride between the nail and protruding flest, and powdering the latter, with the same substance. A large bandage should be applied over all, not impregnated with the liquid sesquichloride of fron; a precaution which may, however, be useful, as the folds of the band dry rapidly, and preserve their situation in a more exact manner. On the following day the exhabitant flesh is found to have acquired the handness of wood; suppuration speedily ceases, and a cure follows after two or three applications.

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HOW TO BAISE GOOD MILCH COWS

Count Pinto, af Silesia, Prussia, exhibited at the Hamburgh International Exhibition, an extraordinary cow called the "Black Tette." The milk she gave would equal ordinarily about 40 American quarts per day, and yet Count Pinto raised her from the common Silesian country breed. The following is his method of raising calves, as described by himself, and his success certainly ought to encourage our farmers to bestow greater care on rearing our ordinary breed of calves:

"The new born calf is sprinkled with meal and laid before the cow, which latter remains chained to her post, and which then licks the calf all over. The calf is then taken away from the cow, and brought back to sucking, only three times a day, at milking time. So the calf acquires from the first day the habit of regular meals punctually given.

"After the calf has done sucking, the cow is stripped clean. In other cases part of the milk is first taken and then the last milk allowed to the calf. Which of these two modes is adopted, depends upon the yield of milk and its richness. I once lost a valuable calf by allowing him the last milk, this containing too much fatty matter.

"In consequence of their abundant allowance of feed, my cows bring large calves, which at an age of three weeks, after being fed nothing but the milk of their mother, will average 150 to 160 pounds, live weight [165 to 176 lbs. English.]—There will also occur many twin berths, which shows that rich feeding does not diminish the generative power.

"At the age of three weeks, the calves are removed to a calf stable, and there receive a drink three times a day, at the same time they used to suck: in the meantime they are allowed hay.

"The first peculiarity now of my mode of feeding in this, that into the drink of the calves I mix a great deal of linseed.

"Whoever examines the milk which forms the natural food of the calf will find that the calf receives a great deal of fatty matter in its food. Is it then justified to rob the calf at once of this constituent by skimming the milk? This was the question I asked myself in 1856; and though, or rather because I then had no knowledge of chemisary, I concluded to allow to each calf a pound of linseed, in compensation for the cream withdrawn. For it must be remembered that in 1856 our scientific men set no value upon fat as a constituent of the feed. Dr. Kuhn was the first to teach and prove the necessity of giving our

animals an allowance of fat. I am now fully convinced that my success is due chiefly to the mixing of fatty matter with the feed.

"The linseed is put into cold water and beiled. The pot must be so large that the linseed fills only one-third, to allow sufficient room for water. The boiled seed is then cooled, and may in this state be kept 24 hours without danger of spoiling.

"One pound of linseed and one pound of meal mixed with the drink daily one year, and good hay being given besides, the animal may be safely admitted to the bull at an age of 14 months, and is at 2 years old a full-grown cow.

"The price of one pound of linseed is here 2 2-5th cents, so the feeding of one pound will cost per year between \$8 and \$9. This is very moderate compared with the result.

"When we neglect the giving of fat in the feed, the calf invariably grows thin, and loses part of his flesh after weaning. Most farmers consider this an evil which cannot be avoided.

"Another point of high importance is to take prevention against diarrhoea. Now, looseness in the bowels originates in most cases from acid formed in the stomach. I therefore suspend between every two calves a piece of chalk. Sometimes a calf will not touch the chalk for months; at other times they eat up the whole piece in a few days. The chalk neutralizers the acid, and so prevents the diarrhoea. Fifty cents will buy chalk enough to last 30 calves a whole year.

"I also shear all my cows and calves. One girl will shear two cows or four calves in a day. The shearing helps to keep the skin clean, and greatly increases both the comfort and appetite of the animals.

"Another point of great importance is, to have the organs of secretion fully developed at the time of calving. Our physicians will prescribe fennel tea to women lying-in; this induced me to try fennel tea also on my cows. Upon one ounce of fennel I poured three-quarters of a quart of boiling water, let it stand five minutes on a hot plate, then strained it, and gave it to the cow luke-warm. The cows are not at all fond of this drink; I therefore sweeten it and give it out of a bottle. I give this drink immediately after calving, three times a day for two days, or six times in all. I give the same drink thereafter once a month; in case of costiveness I give it oftener, with the best success.

"It is of great importance to allow milch cows a sufficiency of fatty matter in their feed always. I prefer linseed to any other ingredient; one pound of linseed costs less than 3½ cents, while every pound of butter more I obtain is worth five times as much. The 'Black Tette,' has received during her late trip to Hamburgh, seven pounds of linseed a day. She gave 3½ lbs. of butter per day, of which 5½lbs. may be called the result of the linseed feeding."

SPRING MANAGEMENT OF SHEEP.

Turning Out to Grass.—In northern regions, where sheep are yarded and fed only on dry feed in winter, they should be put upon their grass feed in the spring gradually. It is better to turn them out before the new grass has started much, and only during a portion of each day for the first few days, returning them to their yards at night, and feeding them with dry hay. If this course be pursued, they make the change without that purging and sudden debility which ensues when they are kept up later, and abruptly changed from entire dry to entire green feed. This last is always a very perilous procedure in the case of poor weak sheep, particularly if they are yearlings of pregnant ewes.

TAGGING .- After the fresh grass starts vigorously in the spring, sheep are apt to purge or scour notwithstanding the preceding precautions. The wool about and below the vent becomes covered with dung which dries into hard knobs if the scouring ceases; otherwise it accumulates in a filthy mass, which is unsightly, unhealthy, and to a certain degree dangerous-for maggots are not unfrequently generated under it. In the case of an ewe, it is a great annoyance and sometimes damage to her lamb, for the filth trickles down the udder and teats so that it mingles with the milk drawn by the lamb, and often miserably besmears its face. I have seen the lamb thus prevented from attempting to suck at all. Whether the dung is wet or dry, it cannot be washed out by brook washing, it must sooner or later be cut from the fleece, and at the waste of considerable

Tagging sheep before they are let out to grass prevents this. This is cutting away the wool around the inside of the thigh, in a strip wide enough so that the dung will fall to the ground without touching any wool. Wool on or about the udder, which is liable to impeded the lamb in sucking, should always be cut away-but not to an unnecessary degree during cold weather, so as to denude this delicate part of adequate protection. Tagging is sometimes performed by an attendant holding the sheep on its rump with its legs drawn apart for the convenience of the shearer. But it is best done by the attendant holding the sheep on its side on a table, or on a large box, covered, except at one end, and the breech of the sheep is placed at the opening so that the tags will drop into it as they are cut away. This is

the only safe position in which to place a breeding ewe for the operation, when near to lambing, unless it be on her feet—and tagging on the feet is excessively inconvenient. If a ewe is handled with violence, there is danger of so changing the position of the feetus in the womb as to render its presentation at birth more or less irregular and dangerous; but if the operation is performed as last described, and the catching and handling are done with proper care, there is no danger whatever.

Lambing.—It used to be the aim of flock-masters in the Northern States, to have their lambs yeared from about the 1st to the 15th of May—particularly when Saxon and grade Saxon sheep were in vogue. Small flocks with abundant range would grow up their lambs, born even at this season, large and strong enough to winter well; but in the case of large flock they were not sure or very likely to do so, except under very highly favourable circumstances. The least scarcity of good fall feed told very destructively on them—and if there were those which were dropped as late as June, they generally perished before the close of winter.

From the 15th of April to the 15th of May is now the preferred yeaning season among a majority of Northern flock-masters. Some, however, have it commence as early as the 1st of April, and those who breed rams for sale as early as the 10th or 15th of March. These very early lambs, if properly fed and kept growing, are about as much matured at their first, as late dropped ones are at their second shearing.

We have seen that Mr. Chamberlain, the importer and leading breeder of the Silesian Merinos in this country, has his lambs dropped from November to February. Under the admirable arrangement of Mr. C., and under the admirable handling of his German shepherd, this works well, and a lamb is rarely lost, and being early taught to eat roots, &c., separate from their dams, they attain a remarkable earliness of maturity.—Such a system would not, of course succeed with ordinary arrangements and handling, nor would it be profitable for ordinary purposes.

It is understood of course, that lambs yeaned earlier than May, in the Northern States, must, as a general thing, be yeaned in stables. But this in reality diminishes instead of increasing the labors of the shepherd. The yeaning flock is thus kept together, and no time is spent traversing pastures to see if any ewe or lamb requires assistance, or in getting a weak lamb and its dam to shelter, in driving in the flock at night and before storms. And the yeaning season may thus be got through with before it is time for the farmer to commence his summer work in the fields.

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PROPER PLACE FOR LAMBING .- Stable yearing, too is safest, (though I once thought otherwise,) even in quite pleasant weather, provided the stables are roomy, properly littered down and ventilated, and provided the sheep are sufficiently docile to allow themselves to be handled and their keeper to pass round among them, without crowding from side to side and running over their lambs. While the stables should not be kept hot and tight, they should be capable of being closed all round; and they should be so close that in a cold night the heat of the sheep will preserve a moderate temperature. On the other hand, they should be provided with movable windows, or ventilators, so that excess of heat or impure air can always be avoided.

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Excessive care is not requisite with hardy sheep in lambing, and too much interference is not beneficial. It is well to look into the sheep house at night, the last thing before going to bed, to see that all is well, then if all is well, many even of the best Merino shepherds leave their flocks undisturbed until morning, holding that the lamb which cannot get up, suck, and take care of itself until morning in a clean well-strawed, comfortable stable, is not worth raising. Our English shepherds, who have charge of choice breeding flocks, usually go round once in two hours through the night during the hight of the lambing season. This may be rather more necessary among breeds which are accustomed to bring forth twins-for one of a pair is less likely to be missed and cared for by the mother, if it accidentally gets separated from her. But unless the sheep are extremely tame, more harm than good, even in this particular, would result from disturbing them in the night .- RANDALL's Practical Shep-

OXEN VERSUS HORSES FOR FARMING PURPOSES,

Some experience and considerable observation among the farmers of Canada, lead me to offer a few suggestions on the comparative merits, viewed in various lights, of oxen and horses as working teams for farm purposes. I will, if you please, foreshadow my opinion by a quotation from the book of all books, and from the wisest of all the wise men of old-"Where the ox is there is increase in the stall." That oxen do not receive the attention they deserve as farm workers is very evident to my mind, but I may not be able to make it as apparent to others. I admit that for many kinds of work, horses are preferable, such for instance as mowing and reaping, raking bay, working among field crops, &c.; but for a majority of purposes, oxen are not only quite as good but far preferable. For hauling wood and lum-

ber, moving stone and manure, and the like, where great strength but not rapid motion is required, no team equals an ox team. But says an objector, "I could never plow with oxen"-this opinion arises more from prejudice than from honest comparison. A well-bred and well-trained ox team are more than a match for an ordinary pair of horses, and with the same keeping and care we bestow upon our favorites of the stable, no farmer need blush for his oxen. I have frequently, in the New England States, where oxen are more generally used than anywhere else on the continent to my knowledge, seen oxen and horses plowing in the same furrow, the oxen taking their turn without missing all day. I will not deny that oxen move more slowly than horses. But treat your horses as you do your oxen, and they could hardly move at all. You turn your oxen loose into the yard, give them coarse fodder, an open shed or no shelter at all, while your working horses are stabled, groomed, and fed on the choicest hay with abundance of grain-which care and feed add much to their spirit and action. Give oxen the same treatment and you will have an active, energetic, resolute team for the plow or wagon.

Oxen are far more economical and hence more profitable than horses. A yoke of medium sized working oxen can be kept at hard work as cheaply as you can keep one horse, counting the wear and tear of harnessing and the extra feed the horse runs you in debt for. The ox feels the stimulus of extra feeding of esculents and grain quite as readily as the horse, and every pound of tallow you pack upon him adds just so much to your income. He is much less liable to disease of any kind and especially to affections of the joints and bones-and even were he subject to thoroughpin, windgalls, ringbone, splints, or all combined, his net value is not thereby greatly depreciated-as is the case with these diseases in the horse. Your proud stepping charger becomes real estate by a spavin, and when old age creeps upon him and he is incapacitated for labor, he is worse than a dead loss to his owners. Not so of our favorite the ox, no blemish ruins him in an economic point of view. Give him a few months rest in a good pasture with a little extra feeding of turnips in the fall, and your ox is nearly as valuable as ever. His beef and tallow will al-

While neat cattle enrich the ground on which they pasture, horses are a constant leech. Observe how rank and verdant the grass grows about the excrement of the ox, and notice also the reverse to be true with that of the horse. I would not argue that the horse could well be displaced altogether—but I do submit that where there is

occasion for more than one team, that a team of horses and one of oxen would be far more profitable than two horse teams. This parallel might be carried to much greater length, and the more the subject is examined the more apparent will it become that the rearing and working of so many horses instead of enriching the farmers who follow it is yearly robbing them of the handsome profits incident to the rearing of neat cattle and sheep.

Oxen are not generally used in this country from some notions of pride neither commendable nor profitable. The ox is not fashionable, and why? Simply from custom and because no care is bestowed in getting good stock and in matching the teams I have seen many beautiful ox teams-so nicely matched were they that their owner would have to put oprivate mark on the near one that he might know to which side he belonged. So well handled were they that the plowman could run a furrow any distance as straight as an arrow without a driver. Throw away all prejudice against the ox, and give him a fair trial, and my word for it you will not again be without him on your farms .- Cor. Canadian Farmer. mad been landered on the rest of the row !

Treatment of Cows.

We have received from S. F. Perley, of Naples, Me., "Rules for the Treatment and Milking of Dairy Cows." The "rules" are very good, and substantially as follows:—

Cows should be driven from pasture as leisurely as they will walk; never harrassed or irritated by man, boy or dog, because fast driving or harsh treatment of any kind injures the quality and lessens the quantity of milk. The milk of cows in heat is unfit both for human food and for dairy use.

Milking should be at regular intervals, say at five o'clock in the morning and at five o'clock in the afternoon. Those milked first in the morning to be milked first at night.

When cows are in the barn, treat them gently in every respect. Let them understand that they are approached only with friendly intentions.—Loud and harsh language, or anything that would excite the animal or cause fear, is decidedly injurious.

Filth may add value to the dung heap, but it spoils milk. Let the udder and teats be thoroughly cleansed—washed, if necessary—and, beginning slowly, let the milking soon be as rapid as consists with gentleness. To draw milk gently, quickly and completely, is the highest accomplishment in a milker. The strippings are from five to diffeen times richer than the milk first drawn. No one

can afford to lose this; and, besides, leaving any in the udder tends to diminish secretion. Poor milkers dry up cows.

No talking should be allowed while milking is going on. Besides irritating the cow by noise, the milker, every now and then, suspends his labor to listen and reply to conversation, and hence the work is imperfectly performed and the loss is very considerable.

THE ART OF MAKING GOOD BUTTER.

The New England Farmer has a communication from a correspondent, "A. W. C," with the above heading. The Editor calls attention to it by a note, in which he says: "We know from long experience that the opinions advanced by the writer are correct. If his suggestions were followed by all, there would be little difficulty in producing good butter at any season of the year:"

"How do you make such nice sweet butter in winter?" is a question often asked by my customers, as I carry them their usual allowance of fresh butter for the week. Sometimes I answer, 'I will tell you when you go to farming.'

"For me, it seems a very simple thing to make butter that is good and uniform through the whole year. But, were it simple to all, butter would hardly command the present high prices.

"Some one asked through your columns not long since, how to make good butter in winter.—
I would answer, "Make it just as it should be made in summer." Yet as you may not think that a very definite explanation of the process, I will tell you how good butter can be made in summer.

"A butter dealer said to me, the other day, that were he engaging a dairy for the season, he only wished to see a sample of the August or dog-day butter. If that were satisfactory, he would take his chance with the other two ends of the season.

"There are about five or six weeks in spring and fall, when, I suppose, every farmer's wife can make a fair article of butter. It will almost "make itself," with good June or September feed, in a clear, dry, June or September atmosphere, with the mercury indicating an average of 60°.

tember and a part of October, to bring better prices then than that made at any other time of the year? But for the dairy to yield a generous profit through the whole year, a fair article must proceed therefrom every week. Everybody can not be supplied through dog-days with June butter; nor can every family have their tube for winter filled in September.

"Now if you can bring the dairy under the

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same conditions, in August or December, that prevail in June and September, why should you not realize the same results? Doubtless you would. But this it seems impossible, at present, fully to do. Yet I think the secret of success in butter-making is to bring about these conditions as nearly as may be.

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"In the first place, you must, of course, have good cows. Some cows will make a large amount of high colored butter, but it is too soft to handle well in any weather, especially when very warm; others yield an article too white to be attractive, though I consider color of much less importance than solidity. As far as my observation has extended, very yellow butter is not as good as that which is lighter colored. It is apt to be oily, caused, I think, first, by being naturally soft, and second, by the consequent over-working it usually receives; the buttermilk being less readily extracted from soft butter.

"Good cows obtained, the next requisite is good feed. And what can be better than June honeysuckle 'up to the eyes,' or clover aftermath in September? Probably nothing. I prefer, however, as a matter of health, to give a feeding of dry hay every day through the season. I can thus keep them more uniformly, and not subject them to sudden changes from green to dry food.

"But what for feed the remainder of the year? Why, get the next best thing—which is the same, cut and cured, for feeding in the stall. During the third week of last June I cut four or five acres of clover and red-top, the clover just coming into flower, the red-top showing its flower stalk. Sixty days after, I cut the same field again. This winter, the cows, to which both lots are fed, seem to know no difference between the first and second crop. It is all rowen to them.—I am fully of the opinion that very little of the hay in New England is cut as early as it should be. For dairy cows, I would prefer it all cut before blossoming, rather than after.

"A large butter dealer and a good judge, tells me that he has known his mother to make just as good and just as yellow butter in winter, while her cow was being fed solely on rowen, as she could ever make in summer, from the same animal. I think he came very near the truth.

"But to supply yourself with a stock of June atmosphere, in which to set your milk and do your churning, through dog-days, is not so easy a thing as to cut your hay early, and afterward a crop of rowen. The thermometer does not usually stand at 66° from July to September 1st, nor do you generally have a clear dry air at that season.

"Hence I do not expect you can make your best butter, or that which will keep the longest, during this period, unless you can secure these two requisite conditions, viz., moderate temperature and dryness of the atmosphere. But the nearer you can contrive to approach these conditions the better your success.

"I keep my milk, during the extreme hot weather, in my house cellar, a large, light, airy room, clear of all boards and wooden utensils not used for milk; the whole room thoroughly whitewashed. The windows—a north, south and west one—are open or shut, darkened or not, just as may he needed to keep the air of the room as pure, as dry, and at the same time as cool as it can be under the circumstances. I consider a damp atmosphere worse than a very warm one for milk. It makes the cream thin and watery, requiring much more care and longer time in churning.

"I need not say that I do, or that you should, set your milk in the pans two or three inches in depth, and skim it up at twenty-four or thirty-six hours old, putting the cream in a tin pail or stone jar, stirring it occasionally; for that almost all dairymen and women do. But when I say you should never commence a churning unless your cream is known to be at a temperature not any below 60° now higher than three or four above that point, I can not, at the same time, say everybody does that, for I do not know of one dairyman or woman, except through the books, who is exact in this respect.

"All butter-makers think that if cream is warm it will come too quickly, be soft and white, and not pleasa t stuff to manage, and if too cold it will swell and foam, and not come at all—some one asserting that 'it did almost come, but went back to cream again." One dairyman, who usually has good luck, told me this winter, that he churned all one day and then gave his cream over to the pigs, only wishing he had done it sooner.

"Up to last April, I occasionally, and not very unfrequently, had just such 'luck.' Since that time I have used a common fifty cent thermometer—selecting one that would slide easily in the case, or that I could dip the bulb into the cream without the case.

"When I have gathered a sufficient quantity of cream I try it by the thermometer, and if the temperature be from 60° to 64°, I churn it immediately. If not within those limits, I bring it there, by some means, before it goes into the churn. I keep my cream in a large tin pail that can be hung in the well the night before churning —not in the water, but just far enough down to have the cream at 60°, when churning is commenced. Placing it in the water makes it too cold; and cold cream is addicted to the same freaks in summer as in winter.

"In Spring and Fall 62° does well; in winter, 64°; but in summer the temperature will rise rapidly enough if you commence at 60°. I never want butter to reach a higher temperature than 66° at the time at separates from the buttermilk.

"Following this method, I have not had the shadow of a failure for ten months. My summer and winter butter have come about equally well, varying from fifteen to forty-five minutes, according to the ripeness of the cream. I think it does no harm to run a bucket of cold water through the churn after the milk is drawn off. If the butter is a little too soft, as it almost always will be in summer, it does much good by hardening it before salting. My butter is taken from the churn to a butter worker, like the small simple one figured in Flint's work on Dairy Farming-a book, by the way, that every man or woman who exspects ever to make a hundred pounds of butter should read through twice, as a preliminary step. In this worker the butter is salted, then returned to the well for twelve hours, after which it is thoroughly worked. And here I find a great advantage in the worker over the hands. If butter a little too cold is worked in summer, by hand, it will grow much too warm before the buttermilk is expelled; while the worker will do it quickly, thoroughly, and without causing the oily taste so commonly found in hard worked

"So much for summer butter. And now, to make good, sweet, yellow butter in winter, you have only to secure the same conditions that are best for making summer butter, namely, good cows, rich feed, a dry air in which to raise the cream, and a temperature as near 60° as it is possible to preserve. The latter condition is much more easily obtained in winter than in summer; for by artificial heat the air can be kept at the proper temperature in the milk-room without being made damp, while the same result can not as readily be obtained in summer with ice, on account of the dampness accompanying it. Indeed, I believe that more butter, and that of a good quality, can be made from a given number of quarts of milk, in winter, than can be through the warmest weather.

"Finally, in butter-making, as in ship-building, or surveying, strike the word "luck" from your vocabulary. Learn your trade. Learn the laws that govern your work and obey them. Be not outwitted by heat or cold, by wet or dry, but press them all into your service, and be master, and not slave, of the fluid forces of nature."

HORSES.

They must have daily exercise in the open air!—and can no more be expected to live without it than their owners. Exercise is a most essential feature in stable management, and, like well-opportuned food, tends alike to preserve the health of horses.

Daily exercise is necessary for all horses, unless they are sick; it assists and promotes a free circulation of the blood, determines morbific matter to the surface, developes the muscular structure, creates an appetite, improves the wind, and finally invigorates the whole system. We cannot expect much of a horse that has not been habituated to sufficient daily exercise; while such as have been daily exercised and well managed, are capable of great exertion and fatigue, and are ready and willing to do our bidding at any season. When an animal is over-worked, it renders the system very susceptible to whatever morbid influences may be present, and imparts to the disease they may labor under, an unusual degree of severity. The exhaustion produced by want of rest is equally dangerous; such horses are always among the first victims of disease, and when attacked their treatment is embarrassing and unsatisfactory.—Horse Owner's Book.

HEAVES.

Ordinary heaves is usually occasioned by a deranged condition of the digestive organs; it is accompanied by emaciation, and seems to resemble that affection, known as asthma, and is attended with the same difficulty in respiration.

The disease is named heaves, from the fact that the affected animal heaves at the flanks or performs what is known as abdominal respiration, by bringing into play the abdominal muscles, for the purpose of aiding the lungs and diaphragm in their work of respiration and expiration.

The best plan of treatment is to let the patient run in the fields, and give him occasionally phosphate of lime and ginger, equal parts, dose one tablespoonful. I have known animals with the affection very much benefitted by a run at grass; also by feeding carrots, and by sprinkling their food with a small quantity of lime water.

Heaves or Broken Wind.—This form of malady is considered incurable, from the fact that it is of an organic character, depending on rupture of some of the air cells, change of structure and ephysema of the lungs. In this affection we observe a jerking double movement, very laborious and distressing. The animal is a picture of ill health, and when urged to travel fast, soon becomes exhausted and used up. The direct cause of broken wind is over-exertion.

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[—] The Manure of Sheep is much more valuable than that of cattle; thirty-six pounds of the former being equal to one hundred pound of the latter.

In view of palliating some of the worst symptoms, I should treat the case as if it were one of ordinary heaves.—Dr. Dadd.

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A correspondent of the Canada Farmer says:-The usual barbarous method of washing sheep by immersion is easily avoided in any locality, where there is a small running stream. Select a proper place and build a dam 3 or 4 feet high, within 21 or 3 feet of the bottom, place a spout 21 feet wide and 11 inches thick so that a broad thin stream may be secured, let this stream fall upon a small board floor with a railing to prevent sheep from getting above or below, make a small inclosure immediately contiguous to the side of your floor. When washing time comes, one person can hand the sheep from the enclosure to two men who hold them, beneath the spout. By turning them once over, the water will carry off all the filth without much wetting the men, 30 or 40 sheep per hour may be washed with ease. Let your dam fill a few days previous to washing time, in order to have the water as warm as may be. An escape spout above your wide spout to prevent the over flow of the water, and another at the bettom of the dam to drain it off altogether, are necessary precautions. If your stream is small, select a day following a shower, when you can secure a sufficient head of water, and have your sheep in the best condition for washing easily. If your sheep are not moistened by rain it would be an advantage to pass them beneath the spout, some hours previous to their final washing. If your dam is in a pasture field and there is a friendly tree to shade your enclosure and spout, so

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For the benefit of Wool-Growers, I send you a recipe for the cure of scab—which has been used with great success in this country. It has the advantages of being cheap and not injurying the constitution of the sheep, or persons applying it, besides being a sure cure.

The recipe was procured by a shepherd of this country, from his father, in Ireland, who has

charge of about 600 sheep there.

Recipe.—To one gallon of Tobacco water or Salt brine, add one ounce of Corrosive Sublimate; one ounce of Sal Ammoniac; one ounce Arsenic; one-fourth ounce Blue Stone; one-half gill Oil of Vitriol; one gill Spirits of Turpentine. The compounds to be dissolved in boiling water; the Oil of Vitriol to be added when the liquid is cold, and the Turpentine just before using. If a person has many sheep to doctor, he should have a joke to hold them. A very simple one is a forked post, the fork about two feet above the ground, with a pin through.

Before applying the medicine, the sheep, when diseased badly, should be scratched with a long-

toothed curry combed, or scarified with a knife.
One man pours on the medicine while another
rubs it in, with his hands well greased. A person's hands would get sore, in time, if not grease
ed. To make a sure cure, the sheep should be
gone over a second time, after an interval of tendays.

For snake bites, we scarify the wound, or where swollen, and put in salt, and seldom lose a sheep when taken in time.—Sol. Jewett, in Carlifornia

Stock Journal.

The U. S. 10-40 Two Hundred Million 5 per cent. Loan.

We would call the attention of the farmers of Michigan who have money which they wish to invest, to the opportunity presented in the U.S. 10-40 Bonds, a better one can hardly be found at present.

The loan is now being taken very rapidly, and those who wish to make investments in it must make up their minds to do so within a very short time. The Bonds are to be redeemed in coin, and to run for a period not less than ten years, nor more than forty years. They draw five per cent. interest on Bonds over one hundred dollars is to be paid semi-annually,-on all other Bonds annually. They are exempt from all State and local taxation, Taking gold at its present premium, and the interest is equal to about nine per cent, payable in paper, to say nothing about the exemption from taxation, which may be regarded as equal to two or three per cent more. No more favorable opportunity for the investment of surplus funds is now offered, and we presume that those who were not fortunate enough to get into the 5-20's, will not be slow in taking advantage of the 10-40's. Farmers and others should invest immediately, as the Loan was only authorized in March, and up to the 18th of May fifty millions of Bonds were sold, when cannot of the redleg

Cut and Uncut Potatoes.

A few years ago I tried several experiments to determine whether whole or cut potatoes would yield the best. I had planted whole potatoes, but many farmers said that cut potatoes are bettor. My experiments satisfied me that whole potatoes are best in all cases. I give the result of one experiment. The variety used was Jackson white.

The potatoes were carefully selected and weighed when planted, the produce dug when ripe, and weighed. The manure was spread on plaster applied in the hill, 3 bushels to the acre. A few rows of each kind were planted through the piece, and the calculation made for an acre of each kind.

One acre planted with large, uncut potatoes, 58 bushels to the acre, yielded at the rate of 377

bushels to the acre. One acre planted with middling-sized potatoes, 29 bushels to the acre, 333' hushels. One acre planted with cut potatoes, 29 bushels to the acre, yielded 249 bushels. One acre planted with small whole potatoes, 9 bushels to the acre, yielded 244 bushels.

Number of Plants to the Acre.

The following table may be useful to the gardener in showing the number of plants, or trees, that may be raised on an acre of ground, when planted at any of the under-mentioned distances. Distance apart. No. of Plants. Distance apart. No. of Plants

1 foot - 43.560 9 fe	et 537
1 1-2 feet - 19,360 12 fe	eet - , - , 302
2 feet 10,890 15 fe	eet 193
21-2 feet - 6,969 18 f	eet 134
3 feet 4,440 21 f	eet17987
4 feet 2,722 24 f	eet - 1 - 75
5 feet 1,742 27 f	eet 59
6 feet 1,510 30 f	eet 48

bas nies at bea Early Potatoes, and at l' .smit

What kinds, and how to Manage them .- Different . localities and soils may succeed best with different varieties. Some preser Jackson White, some the early Pink Eye, some the Ash Leaved Kidney and others the early, or Mountain Junes. Either of these kinds are good, and each the best in its favorite locality. We prefer the latter, simply because we have succeeded best in its culture. Having selected your kind, fit your ground as early as the season and soil will permit, and furrow, or hole the ground of sufficient depth to allow you to put a shovelful of unfermented manure in the place designed for the hill. Cover this manure with a few inches of soil, say two or more, and plant your seed. The manure will create artificial heat and hasten vegetation. Hoe early and frequently, till the potatoes set. Another way to secure early potatoes is, to put your seed in a shallow box and cover slightly with sand or fine soil, and leave standing in the cellar until the season becomes settled, then remove with care, so as not to disturb the tender roots and shoots, and plant where you desire.

Cauliflower.

In the early part of May, Cauliflower seeds may be sown in the open ground; the plants should be pricked out in June, and transplanted into good ground early in July, to flower in the Fall: those that are not likely to flower by the last of October, should be taken up and provided for in the manner recommended for the Cape Broccoli, viz; they will have to be taken up carefully with the roots and stems covered with earth as far as their lower leaves. Those who have not a place provided may keep a few in frames, or in a light cellar.

They should be then turned out with the balls of earth entire, and planted in a bed of the richest earth in the garden, at the distance of two feet and a half from each other every way. The plants should be afterwards well attended to by hoeing the ground deep around them, and bringing the earth gradually up to the stems, so as to push them forward before the approach of warm weather. When the soil has been drawn up to the plants some little time, fork the ground between the rows lightly over, which will promote the growth of the plants. They should be liberally supplied with water in dry weather; those out of flower twice a week, and those in every other day, which will contribute to their producing very large heads. As the flower heads appear, the larger leaves should be broken down over them to defend them from the sun and rain, in order that the heads or pulps may be close, and of their natural color. a grass fille rathe oil acro pone

melon.

The Melon is an exetic plant, growing wild in Asia. It is cultivated in all the warm countries of Europe, and also in Africa and America, where its salubrious and cooling fruit is greatly esteemed.

For the varieties of the Musk or Canteleupe Melons, prepare a piece of rich ground the first week in May; manure it and give it a good digging; then mark it out into squares of six feet every way; at the angle of every square, dig hole twelves inches deep and eighteen over, into which put seven or eight inches deep of old rotten dung; throw thereon about four inches of earth, and mix the dung, and earth well with the spade; after which draw the remainder of the earth over the mixture, so as to form a round hill about a foot broad at top. When your hills are all prepared as above, plant in each towards the centre, eight or nine grains of good melon seed, distant two inches from one another, and cover them about half an inch deep. When the plants are up and in a state of forwardness, producing their rough leaves, they must be thinned to two or three in each hill; draw earth from time to time round the hills, and as high about the roots of the plants as the seed leaves. As soon as the plants spread into branches they should be stopped, by pinching off the top of the first runner bud, this will strengthen the plants and promote their perfecting the fruit early; after which keep the ground perfectly free from weeds by frequent

There are many varieties of the Melon, highly estimated in Europe, which do not succeed in this country; the gardener should, therefore, plant only such as have been tested, and found to produce good fruit here, or our superior old sorts

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may become degenerate. After a judicious seaction is made, if caution be not used, to plant the different sorts remote from each other, also from cucumbers, squashes and gourds, degeneracy will infallibly be the consequence.

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STATE ITEMS.

SECRETARY OF THE BOARD OF AGRICULTURE.— Hon. Sanford Howard, late Editor of the Boston Cultivator, has accepted the appointment, tendered him, of Secretary of the Board of Agriculture of Michigan.

THE WHEAT CROP A FAILURE.—The State News says: There is no disguising the fact that the wheat crop in this county, Washtenaw, will be a failure. Not a quarter of the usual yield will be realized.

A PATRIOTIC MOVE.—The committee appointed by the Executive Board of the Hillsdale County Agricultural Society, to prepare for and superintend the Sheep Shearing Festival, to be held on Thursday the 26th inst., have, after mature consideration and consultation with wich those most interested, deemed it advisable to change the programme; so far as pertains to a free pic-nic dinner, and instead thereof to use all our efforts in assisting the Soldier's Aid Society in raising means for the comfort of the 50,000 sick and wounded soldiers of our suffering country.

L. Dow CRIPPEN, one of the very oldest setlers of Coldwater, having located there in 1834, died at his residence in that city on Wednesday, the 20th ult. He was the father of Jas. B. CRIPPEN, Esq., Ex President of the State Agricultural Society, and father-in-law of Gen. C. B. Pisk, now commanding in Missouri, and has been one of the first in business and all public enterprises in that city. On the day of his death the leading places of business were closed. His funeral took place on Friday 22d, Mr. N. L. WILTzie delivering the discourse.

HIGHLAND.—S. W. Rowe, Esq., of the township of Highland, has purchased and placed on his farm, which is one of the best in the county, several fine imported sheep. Mr. B. F. Davrson, of the same township has also been improving his flock by the introduction of imported sheep. These gentlemen are both taking a hint from the present high price of wool, and are setting an example that it will be well for their neighbors to imitate. It costs just as much to raise a fleece of poor wool as the very finest, and it don't bring half as much in the market.

Joseph Bond, of Eaton county, while making

maple sugar this spring, discovered the remains of two infants, with their skulls broken, in a hollow stump, near the residence of a Mrs. Holly. On tracing out the matter it was found that they were the illegitimate offspring of one Mrs. Baker, and were born at the house of Mrs. Holly, and disposed of by Mrs. H. and daughter. The children were evidently the victims of a most unnatural murder. The mother and daughter were arrested on the charge, and taken before a justice and both held for their appearance at the next term of court.

SHEEF KILLING.—The Flint Citizen says: For some time past, numerous farmers in several Towns of this County, have lost valuable sheep. Upon search for them, their carcasses have been found in unfrequented places, with the peltstaken off. It would appear that an extensive system of sheep-stealing has been carried on in this manner, for the sake of the pelts alone, owing to the high price they bring in the market. In some cases it is said to have been discovered that the perpetrators were so brutal as to skin the sheep alive! Several persons have been arrested and are now in the County Jail, on suspicion of being the criminals.

A SPLENDID HORSE.—The Young St. Lawrence, formerly owned by James M. Brown, a celebrated horseman of Massilon, Ohio, arrived in Niles, where he will stand during the season. horse cost \$5,000 when he was three years old, and is considered one of the best horses in the The interests of the western United States. portion of Michigan have long required that such a horse should be kept here, and our farmers will find it to their advantage to patronize him. It costs no more to raise a horse that will bring from \$300 to a \$1,000 when he is four years old, than one that will bring but \$75. The owner of this horse proposes to match him against any horse in the State next fall.

The Jackson Citizen says:—The farmers of the town of Grass Lake, in this county, and of the towns of Sharon and Manchester, in the adjoining county of Wastenaw, who are interested in the subject of wool growing, propose holding a wool festival at the house of David Rose, Esq., in the town of Sharon on Tuesday, the 31st inst. They propose to take samples of their stock to Mr. Rose's and their shear them, weigh the fleeces, compare quantity, and quality, and transact such other matters as may be calculated to promote the wool growing interest of this section of the State. Among other things in contemplation is the formation of a "Wool Grower's Association." such as now exists in Ohio, New York, and other States.

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For the Michigan Farmer, THE POISON CUP,

The following lines written by a wounded soldier, were suggested by seeing mothers visit the Hospital and weep over brave intemperate sons.

Oh! keep from me the poison cup-I would not touch the serpent's form-It only burns all feeling up It only soothes to hide its harm.

Its fangs are long, and deep they sink Into the unsuspecting heart; Till naught will satisfy but drink; Strong drink, that yet will cause its smart.

And the worst of all horrors are Those which the tremens bring to man Demons, and serpents sees he there, Encircling him like satan's band,

How many do we see each day Who little thought they e'er would be Habitual drunkards ?" some folks say: They're lost to heaven eternally."

But let us hope that there is peace For all, though dark the path they've tred: If they'll repent; if they will cease Their sins, and give their souls to God.

Oh! I have seen fond mothers weep: And weep as if the heart would break; To see their sons in drunk ness sleep, And live in shame when they awake.

I heard, one time, a mother's prayer; I never wish to hear it again. For in those accents of despair Was teld to God, a heart's deep pain,

Bome of those mothers rather see Their sons borne lifeless to the tomb. Than see them in such slavery: And met at last a drunkard's doom

I'll die without a murmur where The whizzing ball lays many low: Where Battle's smoke, and sultry air Surround me, as from earth I go.

That would not cause such bitter pain To fill the hearts of those I love, That I fell on the Battle Plain, Hoping for rest in heaven above,

Then keep from me the poison cup-VAC 3 I would not touch, I would not tast I would not bind my own soul up In hell forever, there to waste.

I would not cause a mother's heart To break for me while here I live; It is enough that when we part. : In memory they their tears will give.

But when from earth I pass away, A golden crown I hope to were; And praise my God through endless day, Free from all sorrow, pain and care.

ST. MARY'S HOSPITAL, Detroit, May 11, 1864.

HOMINY CAKES.—Take two parts of well-boiled hominy, one part mashed potatoes; add as much flour and milk as will render the mixture stiff enough to be dropped readily from a large spoon. Have enough lard boiling hot to float them. Stir the batter well before dropping into the pan, fry brown, serve hot, and eat with butter, or, if preferred, sugar and cinnamon, or nutmey. They are not only palpable, but decidedly more wholesome and autritious than ordinary fritters.

... NEW YORK CATTLE MARKET.

Smile of BEEF CATTLE, 1

The beef cattle market this week has reached the highest point ever known even by "the oldest inhabitant." At they opening on Monday it was found that only about 3,500 head were in the yard, and holders having paid high prices at Albany, were determined to obtain high prices here, and that they were successful in doing so there can be no doubt when we state that sales were made at 17% a 18c. per lb. net. and some butchers loudly claim to have paid even higher, which is not altogether improbable, when the heaviest estimate of weight made are taken into consideration.

The knowledge that the government agents were on hand and buying quite freely had a tendency to straighten affairs and for a while business was quite brisk. During the afternoon and towards night about 600 head fresh cattle arrived, increasing the supply to 8,600 head, and with more expected in before the close, some weakness was manifested, and many holders of cattle, in order to close out, accepted a decline of \$5 a 7 per head.

The closing day found the stock increased by about 300 heads and prices gave way about Mc per pound, particularly on good grades, buyers of these having supplied themselves on Monday; Owners of cattle were very reluctant to make concessions, but they found it impossible to resist the influence of the large supply on hand, and the majority gradually submitted to the demands of butchers, though some, determined not to accept lower rates, held out the very last, and cattle were driven out to feed until next market day. The market closed dull and a little irregular, quotations represent prices at the close.

1. 4 - 145-	This week,	Last week,
Extra	16% a 17%	16 a 17
First quality	15 a 15%	14% a 15%
Second quality		13 a 1816
Third quality		11% a 19
Inferior	11 a 11%	10% a.11
Average or all sales, about	15% a 15%	148
COWS AT	ND CALVES.	ing the Soldi

The supply of milch cows has been moderate since our last, and with the advance in beef cattle at the close, holders are looking for better prices. The inquiry is principally from milkmen, though a few extra lots received sell at good prices to parties buying for private use, and we note a few sales as blob as \$100

The Brand Barrie	This week.	Last week.	
Choice	\$70 00 a \$95 00	\$75 00 a \$90 00	
Good		60 00 a 70 00	
Fair	. 50 00 a 65 00	50 00 a 60 00	
Infeelmand Common	40 00 0 45 00	AD OO a 45 00	

Veal calves have been scarce particularly the finer grades, and, with a very good demand, prices are higher, sales reaching 16c. per lb live. At the close the market is scantily supplied and steady. He has a sentiand and

to the total total and it	This week,	- 1	Last week
Extra and choice	9% a 10		8% 49
Good	834 a 9	1	8 834
Common	7% a 8	1	7 a 7%
Inferior	5% a 7	DOUGH	5 86%
OHETD A	MID TAMBO		

During the past week the supply has been very light, and with a good demand prices rapidly advanced on Friday last, fine woolled selling readily at 12%c per lb. to live, the highest price ever known in this city by the oldest broker in the yards

Sheared sheep of good qualities are worth fully 8 a 8%e per pound, and wooled do 11% a 12%c. live. Lambs, as a matter of course, feel the influence of the improvement, and choice Confidence Lines Lines

tors sen us night us do ber nende	
Potester in Bollschot	This week. Last week.
Extra	10111 a 1214 . 1014 a 11
Choice	11 a 11% 9% a 10
Good	9% a 10% 8% a 9%
Fair "	8% a 9% 8 a 8%
Common	B B 836
Extra Lambs B hear	d 8 50 a 9 00 . 7 60 a 8 W
Good Lambs	7 50 a 8 00 6 50 a 7 0
Common to Fair "	4 00 a 7 00 4 00 a 6 0
	INE.

There has been a very fair number of hogs received during the past week, and with a good demand the stock is pretty well cleared out at the close, prices closing firm at an improve-

ment 10 6236 4811 p 41.76

action is anade.

Compil FLO

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20 for e superfit wester extra r market mon, ar in time WHI hushels

Milway for win ing 55,0 at \$1 5 COR bush .; vanced OAT and 90

APP mile.1 be foun nes V 485;Ne 186; R mon m

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Cut m П%с. render Blight

and he Orang wester 88a85c through GHI

Mal63 strict) RE Corn v culled

Butte

ment. We quote corn fed live at \$3 a 8 81 per cwt; do dressed. 10 62% a 11 12%; do still-fed live, \$8 a 8 50; do dressed, 10 50 a \$11 per cwt.—NY. Eve. Post, 18th inst.

NEW YORK MARKET. NOTAL

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Compiled for the Farmer from the latest New York advices to the duter gaing to Press.

FLOUR .- The market for state and western flour rather more doing; sales at \$6 85 a \$7 for superfine state; \$7 10 a 7 20 for extra state; \$7 25 a \$7 85 for choice do.; \$6 85 a \$7 for superfine western; \$7 15 a \$7 35 for common to medium extra western; \$7 85 a \$7 55 for common to good shipping brands extra round hoop Ohlo, and \$7 60 a \$8 30 for trade brands, the market closing quiet. Southern flour at \$7 45 a \$7 90 for com-mon, and \$8 a \$10 75 for fancy and extra. Canadian flour at \$7 15 a \$7 25 for common, and \$7 80 a \$8 20 for good to choice extra. Little change in prices as old stock is being worked off in time for new supply.

WHEAT .- There is a fair export demand; sales 119,000 hushels at \$1 53 a \$1 62 for Chicago spring; \$1 57 a \$1 62 for Milwaukee club; \$1 63 for amber Milwaukee; \$1 66 a \$1 66 for winter red western; \$1 70 a \$1 72 for amber Michigan; \$1 69 for Racine spring, and \$1 66 for winter red state, including 55,000 bush. Chicago spring and Milwaukee club, to arrive at \$1 55 a \$1 60. Rye is quiet ot \$1 45 a \$1 48.

CORN.-Very scarce and firm market excited, sales 49,000 bush.; old mixed western at \$1 48 a \$1 50 in store. Price ad_

vanced 8 a 10c. since April quotations. OATS.-Are quiet, at 88 a 90c. for Canada: 89 a 90 for state and 90 a 91c. for western, including Canada at 90c. and state at Myc., 1 a 2c. advanced.

APPLES .- Are very scarce and rule firm. The dealers have called their stock through, and none but sound apples can now be found. The following prices are readily paid: Prime qua-Mes Western Greenings, \$4a\$5; Rhode Island Greenings, \$4 45; Newton Pippins, \$4a\$7; Baldwin, \$4a\$6; Spitzenberg, \$4 \$6; Roxbury Russet, \$4a\$5; Golden Russets, \$8 50a\$4; common mixed lots, \$1 50a\$2.—\$1a\$1 50 per bbl advance on best

unee April.
ONIONS—Continue firm, Red Onions, \$92\$10 per bbl; yellow, \$9a\$10; Bermuda, 10c. per lb.

BEANS-Are in moderate request at steady prices: Choice marrowfats, \$2 80a\$2 90 per bushel; fair to good, \$2/ 50a\$2 .60; far to prime mediums, \$2 65a\$2 70; do Kidneys, \$2 75a\$2 80. Mixed lots, \$2 25a\$2 50 per bushel of 62 lbs. A slight decline since last month. PEAS-Canada, \$1 18a1 20; Western \$1a

PORK .- The pork market more active, sales 2,900 bbls at \$26 for mess; \$25 50a\$25 75 for old do; \$26 50a\$27 for new do closing at \$26 62%; \$28a\$24 for old and new prime, and \$27, for prime mess. Also, 2,000 bbls new mess for June, buyer's option, at \$28, and 500 bbls for May, same terms, at \$27. vance on new and repacked, of \$1a\$1 50 since April,

BEEF-market unchanged; sales 150 bbls at \$9 50a\$18 for country mess; \$6a\$7 for country prime; \$16a\$19 for repacked mess, and \$19 50a\$20 25 for extra mess. Prime mess beef is sominal at \$25a\$28. Beef hams are quiet at about \$28a\$29. Cut meats are gulet and scarcely so firm; soles 50,000 pkgs, at IIXc for shoulders, and 15a15%c. for hams. Repacked, im.

proved \$1a\$1 50. LARD—market is active and firm, No. 1, 13a18%c.; kettle rendered, 18%al4c., and prime steam rendered, 18al8%c. Blightly declined.

BUTTER-in good demand, New butter, choice State firkins and half firkins, 25s40c.; common to good, 28a25c; yellow Orange County, prime in pails and tubs, 40a42c.; fair to choice western reserve, firkins, 30a35c.; Michigan do., shipping order 88a86e.; fair to choice Chie and Illinois, 88a85c. Declined throughout. " how

CHEESE-prime State cheese, 17a18c; fair to good States lis16%c; Ohio and Western loalfe.; English dairy, 18 Maille; thictly prime factory 17 Mal8e. Unchanged again amon a

REMARKS.-Flour and Wheat unchanged since April Corn well advanced. Pats slightly. Apples large advance, on culled kinds. Pork and Beef active and higher on repacked Butter, Cheese and Lard setive and declined,

DETROIT LIVE STOCK MARKET.

The market excited and the highest known prices have been paid during the week ending on May 21st, both east and west:

BEEVES.—First quality and very extra \$7 00a8 50 per cwt.
Ordinary 5 25a6 75 Sitt, 11 00 24 00 approvides that all lie mommon ablan Inferior / 100 / 1 0.414 / 10 8 00a8 50 . 1 4 11 4

SHEEP-Active at \$8 00a8 50 per cwt.

CALVES-In demand at \$5,50a8,50 per head, as to quality. HOGS-In demand at \$10,50a11,50 per cwt-few in market.

DETROIT MARKET PRICES. Ending May, 21st, 1864.

Carefully corrected just before going to press, by

C.L. CROSBY & CO.,

Commission Merchants and Dealers in Fruits, and Western Produce generally. No. 169, Woodward Avenue, Detroit, Mich.

	e, Detion, mich.	anna Hans
White Wheat W bush	unsteady, little offering	\$ 1 58@1 65
Red Wheat do	do do	1 52@1 55
Corn, Shelled, do		1 10@1 15
do in the ear, do	a redorm dog s	0 98@1 00
Oats, do	advanced and steady	0.73@0.75
Oats, do	do templo o se eme ;	11 15@1 20
Barley, new Wewt.	do do d'all' A. M.	2 80@3 00
Potatoes, Neshannocks, W	bu. limited supply & fir	m 1 10@1 15
do common de	o do	0 85@0 90
Apples, \$8 bbl. winter fruit do dried \$8 bush.	scarce and wanted	3 75@4 50
do dried # bush.	firm and steady	2 10@2 20
Seed, clover do		
do do timothy dold I	unchanged to sild	8 00@8 25
Beans, do		
Onions, do	advanced	1 75@2 00
Turnips, do	no sale	0 25@0 80
Clder, B bbl.	none in market	5 50@6 00
Butter, fresh roll, P D	active and advanced	0 28@0 80
do firkin, do		
Eggs % doz,	scarce and wanted	0. 19@0 .20
Pork, best dressed, Wewt	unchanged	9 50@10 9
do \$9 bbl	steady and nrm	27 50@128 0
Beef, best dressed W owt	active and advancing	7 5000 8 00
Mutton, dressed 19 1b.	unchanged a Mo	0.07@0108
do live do	stun this dot for the	0 0500 06
Hides, green, do	advanced	0 06@0 07
do dry, do	do	0 16/20 17
do green calf do	sact die do to b gathers	0 14@0 15
do dry do do		0 2870 81
Sheep Skins each		
Wool fine grade B D	do	0.68@0,75
Canada coarse clean fleece		0 55@0 60
Chickens dressed per pair	payment of Sold intere	0 75 21 00
au do live (P pair anaua ads	f will sauboben teler	0 50000 75
Hay p ton new and old		
Cheese, 19 lb	advanced and firm	0 20@0 22
Corn Meal, Powt.	unchanged	2.00@2 25
Conses and Addings 80 ton	4.	24 00@26.00
Salt, Bbl.	advanced and firm	2 10@2 25
reh 26th, but ob augundlo	advanced	7 000 8 50
Lard, on P Dayer satate b		
Maple Sugar, P D	in limited supply	
do Syrup, P gal	60bs.064	1 50@1 75
WOOD Advenced Good	Hickory 45 50 a 8 00	

WOOD Advanced-Good Hickory, \$5,50 a 6,00. Beech and Maple \$5,2505,50; mixed Wood Beech, Ash, &c., at 4,50.0\$5,00 Green ranges from 25 to 50 cents lower than well-seasoned or

BUTTER.—This market has not been so have of good samples for years, and many persons are making enquiries for good Mable Matter. The consequences at hast twill bring a good price for well made nice table butter for some time to come. Mainly of our butter makers are to careless of the manner in which they prepare and bring their butter to his market, a little more care about be taken "quality and order to ensure a good price. Farmers should put roll butter in clean wet cloths, the cloths could be used many times and save expense of new ones.

U. S. 10-40 BOND

These Bonds are issued under the Act of Congress of March 8th, 1864, which provides that all Bonds issued under this Act SHALL BE REDEEMED IN COIN, at the pleasure of the Government, at any period of not less than ten, nor more than forty years from their date, and until their redemption FIVE PER CENT. INTEREST WILL BE PAID IN COIN, on Bonds of not over one hundred dollars annually, and on all other Bonds semi-annually. The interest is payable on the first days of March and September in each year.

As these Bonds, by an Act of Congress, are

Exempt from Municipal or State Taxation

their value is increased from one to three per cent. per annum, according to the rate of tax levies in various parts of the coun-

At the present rate of premium on Gold they pay

OVER EIGHT PER CENT. INTEREST

in currency, and are of equal convenience as a permanent or temporary investment.

It is believed that no securities offer so great inducement to lenders, as the various descriptions of U. S. Bonds. In all other forms of indebted, the faith or ability of private parties or stock companies or separate communities only is pledged for payment, while for the debts of the United States the whole property of the country is holden to secure the payment of both principal and interest in coin.

These Bonds may be subscribed for in sums from \$50 up to sny magnitude, on the same terms, and are thus made equally available to the smallest lender and the largest capitalist. They can be converted into money at any moment, and the holder will have the benefit of the interest.

The Funded Debt of the United States on which interest is payable in Gold, on the 3d of March, 1864, was \$768,965,000 .-The interest on this debt for the coming fiscal year, will be \$45,987,126, while the customs revenue in gold for the current fiscal year ending June 30th, 1864, has been so far at the rate of over \$100,000,000 per annum.

It will be seen that even the present gold revenues of the Government are largely in excess of the wants of the Treasury for the payment of gold interest, while the recent increase of the tariff will doubtless raise the annual receipts from customs on the same amount of importations, to \$150,000,000 per

The authorized amount of this loan is Two Hundred Million Dollars. Instructions to the National Banks acting as Loan Agents were not issued until March 26th, but the amount of Bonds reported sold at the United States Treasury up to May 14th was

\$48,964,900.

Subscriptions will be received by the TREASURER OF THE United States at Washington, and the Assistant TREASURmes at New York, Boston and Philadelphia, and by the

BECOND NATIONAL BANK OF DETROIT, Mich. FIRST NATIONAL BANK OF ANN ARBOR, Mich. FIRST NATIONAL BANK OF FENTON,

AND BY ALL NATIONAL BANKS

which are depositaries of Public money, and all

RESPECTABLE BANKS AND BANKERS

throughout the country (acting as agents of the National Depositary Banks,) will furnish further information on application and

AFFORD EVERY FACILITY TO SUBSCRIBERS.

Literary Notices.

"ARTHUR'S HOME MAGAZINE."

This ever welcome household visitor under the able editorial-management of T. S. ARTHUR and VIRGINIA F. TOWNSEND, has entered upon its 28d volume. For purity and excellence in contributions and general matter it stands second to no literary magazine in this country. Its filustrations are choice, Terms: \$2 per year in advance, or Four copies for \$5. "THE HUDSON HERALD,"

This worthy representative of the western portion of Lens wee county is fast growing in popular favor we hear in its locality. It is a staunch advocate of the agricultural and general interests of its vicinity, and withal being well filled with the important topics of the day deserves a hearty support from every friend of a GOOD local newspaper A. BABCOCK, Editor and Publisher-price \$1,50 per year.

THE PONTIAC JACKSONIAN." This jeu d' sprite of the great agricultural County of Oakland has much improved in typographical appearance of late, and proposes to abolish all Detroit weeklies by offering \$800 worth of Splendid Premiums to increase its already large list. It is a "live local paper" and must be successful. C. PRABODY, Esq., Editor and Publisher-price \$2 per year.

"THE BARRY COUNTY PIONEER."

This old and reliable journal comes to us with renewed evidences of a more substantial foothold upon minds of its readers, who seem to fully appreciate its determination to truly represent the interests of Barry County both at home and a broad—to us it if a welcome exchange. F. D. ACKLEY, Pullisher—price \$1,50 per year.
"THE WESTERN CHRONICLE."

This is a welcome visitor from the "Fruit Region of Michigan"-it is neat in typographical execution, has a large amount of reading matter, and in local markets is A. No. 1, having few equals in this last respect in the State-all of which should fully commend it to popular favor and support. Published by W H. & E. W. Moon, Three Bivers-price \$1,50 per year.

GRAND HAVEN UNION,"

This ably conducted sheet comes to us bearing most promising indications of prosperity and usefulness, made so by itseaterprising editor and publisher, L. M. S. SMITH, Esq., -its articles on "Meteorology," published sometime since, was worth the price of the paper for one year, aside from its local useful-. It deserves the fullest support of its triends throughout Ottawa County.

"BT. JOSEPH PIONEER,"

This well conducted and neat journal has entered well into its second volume, with every evidence of a continued prosperous publication among the "Orchards of Michigan,"-it is an able local representive, well filled with interesting matter. and as such deserves its fullest share of patronage in that region D. A. Winslow, Editor and Publisher-price \$1,50 per year. "THE BUCHANAN WEEKLY UNION."

This is a new and ably conducted journal halling from Berrien county, published by Messrs. LLOYD & TURNER, at \$1,50 per year. Its full and reliable market reports are a model to our State press-too many of which neglect this important feature. As a local paper it is well worthy of the support of the citizens of Berrien

"THE ROMEO ARGUS."

This welcome exchange and live local newspaper has enter ed upon its Eighth Volume. It is always filled with the most interesting news and literary matter, which should fully com mend it all in its locality—it is every man's duty to support his own HOME paper. HIBAM J. AIKIN, Publisher, - price \$1,50.

SALEMEN WANTED.

TOR salary paid apply (with stamps) to HABRIS BROS., BOSTON, Mace

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BUY THE BEST!! THE PREMIUM THRESHING MACHINE

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TAQUES



THE Railway Horse-Power which has repeatedly taken the First Premium at N. Y. State Fair, and has never fulled to do so OVER ALL ITS OOMPETITORS, wherever exhibited by us in competition with others, running with low elevation and slow travel of team.

COMBINED THRESHERS & CLEANERS.

Threshers, Separators, Fanning Mills, Wood saws, &c. All of the best in the market

THE THRESHER AND CLEANER

Received the FIRST PREMIUM at the Ohio State Fair, 1868 runs casy, separates the grain clean from the straw, cleans quite equal to the best of Faming Mills, leaving the grain fit for the mill or market.

EF For price and description send for Circulars, and satisfy yourself before purchasing.

COBLESKILL, Schoharie County, N. Y.

SHEEP WASH TOBACCO!

asole han just i, the WILL NOT INJURE the most delicate animal.

Kills TICKS on Sheep.

Oures SCAB on Sheep.

Kills VERMIN on Animals and Birds.

Cures all SKIN DISEASES on Animals.

Kills BUGS on Roses, LICE on House Plants.

KILLS CANKER WORM on Apple Trees.

Kills BED-BUGS and WATER-ROACHES,

Kills all VERMIN that infest Grape and Cranberry vines.

One Pound of this Extract will make TEN Gallons of Wash.

For sale by all Druggists, and at Country and Agricul-tural Stores.

Price 75 cents per pound. A liberal discount to the trade and large purchasers,-

Orders promptly sent by express.

JAMES F. LEVIN,

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JAMES FORTON.

JUSTICE OF THE PEACE For the Town of BURTON,

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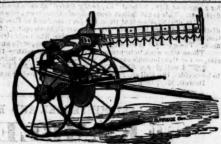
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All kinds of Fruit Trees, Ornamental Trees,

Shrubbery, Roses, LARGE EVER-GREENS. &c., &c.

CONCORD and DELAWARE GRAPES. &c.

For Sale by HUBBARD & DAVIS, Detroit Nursery. Detroit. April, 1864.



Quaker Mower and Reaper

UNRIVALLED IN EVERY RESPECT

TABERS & CO.,

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ALLEN & TAFT, Agents, Plymouth, Mich.

VERBENAS!!

10,000 VERBENAS, containing all the BEST varieties, - \$1,00 - per dozen do per hundred per hundred will be sent by mail, by adding the Pestage, which For sale by

HUBBARD & DAVIS, Detroit Nursery. Detroit, Ap. il, 1864.

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86 CEDAR ST., - - - - NEW YORK CITY, COMMISSION MERCHANT, AND

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FOR MESTA. JOHN STEWART & SONS, Nurserymen, DURDER, Scotland.

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Goods purchased and sold on Commission. Custom house and forwarding business attend to with economy and despatch.

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Chester White Pigs!

THE SUBSCRIBER continues to breed and ship to order Pure bred Chester White Pips. Address

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and Ornamental Trees

The Celebrated TROTTING STALLION ERIOSSON, will stand for the use of mares At SMOLK'S LIVERY STABLE, Railroad Hotel Barn, DETROIT, - - for the Year 1864 AT FIFTY DOLLARS THE SEASON, payable at the time of service.

RICSSON is BIGHT YEARS OLD; sired by Clay's "Mambrine," out of the trotting mare "Mrs. Caudle." He is a mahogany bay, stands 16% hands high, weighs 1800 lbs., and is believed to be unsurpassed for style and action by any trotting stallion of equal size in the world.

ERHCSSON was trained for the course at four years old. He beat "Kentucky Origin and "Albion," at miles heats over the Lexington Course, on the 27th of May, with only seven days training, in 242%. In a match with "fold" for 500, on the 18th of October, he won in three staight heats. Time, 240—2.42—2.883%. Over the Woodiawn Course, on the 26th of October, 1860, for a purse of \$200, he beat "Kentucky Chief" at mile heats, best 3 in 5 to harness. Time, 289, 2.34%, 2.30%, 2.32, leading only first heat. This is the fastest four year-old time ever known in the annals of racing.

EKICSSON, since that time, has been confined to Breeding, where he has proved as successful in the situd as he had become distinguished upon the turf. His colts are light-stepping, fine-styled roadsters, strong enough for the Plough, with superior action and great staying powers. They promise, like their sire, to astonish the world with their speed and great powers of endurance. The question is no longer in doubt, that size, style and speed can be united in one and the same horse.

Those who wish to improve their stock of breeding—the Sportsman's trotting horse, the Farmer's weight-carrying roadster, or the Gentleman's carriage-horse—will do well to patronize this famous stallion.

EVELOWED IN THE FARTEST TROTTING COLT OF ERICSSON GET the present season—to be decided the Fall after they are three years old—in harness, over the Association Course, Hamtranck.

Detroit, May, 1864.

K. C. BARKER.

THE BEST MESSENGER AND BASHAW STALLION IN THE WEST.

KEMBLE JACKS

At the Spring Brook Farm, adjoining the village of FARMINGTON, Oakland county, Michigan, on Monday and Tuesday.

At the National Hotel, Biamingham, on Wednesday and Thursday.

At the Bellevue, House, near the Association Park Course, Detroit, on Friday and Saturday of each week during the season. Season to commence April 18th, and close July 30th, 1864.

Money due when Mare is first served. All accidents at the owner's risk.

. distance of Kemble Jackson.

EMBLE JACKSON, mahogany bay, 16 hands high; star 'n his forchead; hind feet white half way up to the gambrel joints; fealed Jane 14, 1854; the property of Isaac Akin, Paulding, Duchess county, N. Y.; sire Kemble Jackson; dam Kemble Jackson was by Andrew Jackson; his dam, Fanny Kemble, sister to Charles Kemble, and sired by Sir Archy; her dam was Maria, sired by Gallatin; Maria's dam was got by Simm's Wildair, she out of a mare got by Motton's Traveler, her dam imported.

imported.
Andrew Jackson was stred by Young Bashaw; dam by Why-Not, by Imported Messenger; Young Bashaw was by the Imported Tripollian Barb, Grand Bashaw; Young Bashaw's dam was a daughter of Messenger.

Lady Moore was by Membriso.

Lady Moore was by Membriso.

KEMBLE JACKSON is the sire of some of the best colts in this part of the State. They can be seen at Farmington, Br

The Hon W. C. Duxcax has three KEMBLE JACKSON COLTS, which can be seen at any time at his stable in Detroit.

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Persons wishing to raise Trotting or good Road Stock, should not miss the opportunity of using this horse.

F.E. ELDRED, Detroit. I V 10 F. E. ELDRED, Detroit.

THE CELEBRATED HIGH BRED HORSE

MA TO SEA LAND to log trade and larg

Will stand for the season of 1864, at the Farm of the subscriber, two miles south and two west of FARMINGTON VILLAGE, ATIVIL I SEMAL and despatels.

TEN DOLLARS FOR AN INSURANCE.

Season to commence to the 15th of April and close the 15th of July. Good pasturage furnished with running water, at fifty cents per week. All escapes and accidents at owner's risk.

WAYNE CHIEF was bred by the subscriber. Size informed Storm Player: he by the renowned Cotherstone, winner of the Derby, out of Wryneck, by Siane, the size of Merry Monarch, winner of the Derby, and Princess winner of the Oaks Cetherstone was by Touchstone, out of Emma, by Whisker, she being the celebrated dam of Imported Trustee. The dam of WAYNE CHIEF is Dollar, a mere owned by the subscriber, and sired by Sir Archy Lightfoot; he by Sir Archy, out Transport; he by the celebrated Sir Archie; and he by Imported Diomede, who was by Figrized. The dam of Dolly was Betty sired by Young American Eclipse; he by Vivian Gray; he by the renowned Long Island Eclipse. Her dam was Nancy Everett, armare noted for her pure blood and fine style:

DESCRIPTION AND ADMINISTRATION OF THE COURT OF THE COURT

WAYNE CHIEF is FIVE YEARS OLD, and of deep, rich cherry bay, with black mane, tail and legs, fully sixteen hands in height, and perfectly free from blemishes of any kind. He possesses immense boas and mustle, and is pronounced by the most competent indeep to be one of the mest perfect high bred herees in the State. He is thoroughly calculated to produce stock that will combine blood, bone, when meets perfect high bred herees in the State. He is thoroughly calculated to produce stock that will combine blood, bone, when the foreign the meet of the boats of the boats in 1856; he has also drawn THREE FIRST PRIZES at the different STATE FAIRS, and the first in his class at the Oakland County Fair last fall. (Tremistances, prevented his having been shown at the last State Fair—He has a few colts, coming one year old, one of which drew a prize at the Oakland County Fair last fall. (The mestances, prevented his having been shown at the last State Fair—He has a few colts, coming one year old, one of which drew a prize at the Oakland County Fair last fall. His action as a Trotter has rarely been equalled by any horse of his age and training.

A. D. POWER, Farmington, Mich.